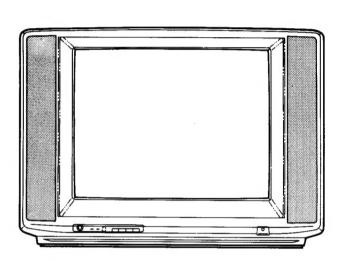
# TOSHIBA COLOUR TELEVISION 2512DDT



For service information not described in this manual, see the original service data for 2812DDT (File No. 050-438).

	SPECIFICATIONS		
Input Power Rating:	AC 220 volts, 50 Hz 140 W		
Aerial Input Impedance:	75 ohm unbalanced type for VHF and UHF		
Receiving Channels:	PAL B/G Standard, SECAM B/G Standard:  VHF		
Intermediate Frequencies:	Picture I-F carrier frequency		
Picture Tube:	25 inches, A59ECY13X31, 590 mm (measured on diagonal of viewable picture area), 110° deflection		
Sound Output:	10.0 watts (at 10% harmonic distortion) x 2		
Speakers:	120 mm x 60 mm 2 pcs 70 mm x 60 mm 2 pcs		
Aux. Terminals:	Headphone Jack, 21 pin socket, 21 pin (S-VIDEO/AUDIO) socket		
Cabinet:	Table type		
Dimensions:	Height       513 mm         Width       734 mm         Depth       455 mm		
Weight:	27.3 kg		

Specifications are subject to change without notice.

# SAFETY INSTRUCTIONS

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" INSTRUCTIONS BELOW.

#### X-RAY RADIATION PRECAUTION

- 1. The E.H.T. must be checked every time the receiver is serviced to ensure that the C.R.T. does not emit X-ray radiation as result of excessive E.H.T. voltage. The nominal E.H.T. for this receiver is 25.2 kV at zero beam current (minimum brightness) operating at 220V a.c. The maximum E.H.T. voltage permissible in any operating circumstances must not exceed 29.9 kV. When checking the E.H.T., use the 'High Voltage Check' procedure in this manual using an accurate E.H.T. voltmeter.
- 2. The only source of X-RAY radiation in this receiver is the C.R.T. To prevent X-ray radiation, the replacement C.R.T. must be identical to the original fitted as specified in the Parts List.
- Some components used in this receiver have safety related characteristics preventing the C.R.T. from emitting X-ray radiation.
   For continued safety, replacement component should only be made after referring the Product Safety Notice below.

#### SAFETY PRECAUTION

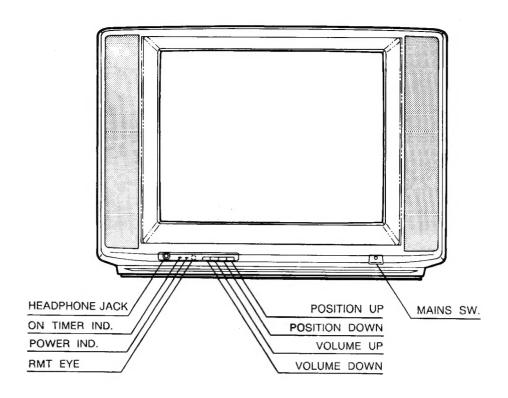
- This receiver has a nominal working E.H.T. voltage of 23.5 kV. Extreme caution should be exercised when working on the receiver with the back removed.
  - Do not attempt to service this receiver if you are not conversant with the precautions and procedures for working on high voltage equipment.
  - When handling or working on the C.R.T.; always discharge the anode to the receiver chassis before removing the anode cap
  - The C.R.T., if broken, will violently expel glass fragments. Use shatter proof goggles and take extreme care while handling.
  - Do not hold the C.R.T. by the neck as this is a very dangerous practice.
- It is essential that to maintain the safety of the customer all cable forms be replaced exactly as supplied from factory.

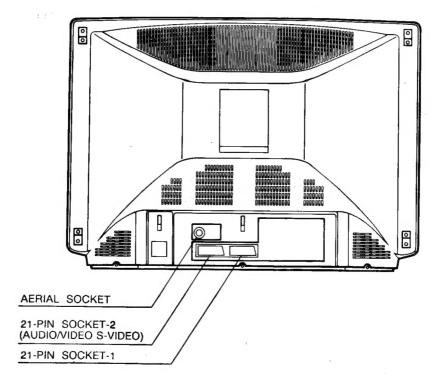
- 3. A small part of the chassis used in this receiver is, when operating, at approximately half mains potential at all times. It is therefore essential in the interest of safety that when serving or connecting any test equipment the receiver should be supplied via a suitable isolating transformer of adequate rating.
- 4. Replace blown fuses within the receiver with the fuse specified in the parts list.
- 5. When replacing wires or components to terminals or tags, wind the leads around the terminal before soldering. When replacing safety components identified by the international hazard symbols on the circuit diagram and parts list, it must be a Toshiba approved type and must be mounted as the original.
- Keep wires away from high temperature components.

# PRODUCT SAFETY NOTICE

Many electrical and mechanical components in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the X-ray radiation protection afforded by them cannot necessarily be obtained by using replacements rated at higher voltages or wattage, etc. Components which have these special safety characteristics in this manual and its supplements are identified by the international hazard symbols on the schematic diagram and parts list. Before replacing any of these components read the parts list in this manual carefully. Substitute replacement components which do not have the same safety characteristics as specified in the parts list may create X-ray radiation.

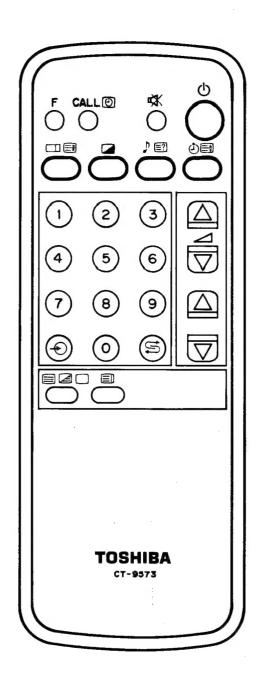
# FRONT CONTROLS AND REAR VIEWS





# REMOTE HAND HELD UNIT

**KEY ASSIGNMENT** 



ON STA	ANDBY	MUTE
CH. DIS	SPLAY ČAL	L [+F; TIMER DISPLAY (1)]
		PERATION KEY QUICK & SERVICE MODE)
		TUNING & SETTING [ ] RED (FLOF), ROTATE (NORMAL) [+F; HOLD ]
		PICTURE CONTROL [ ] GREEN (FLOF), LIST (NORMAL) [+F; PICTURE CONTROL ]
		SOUND CONTROL [ ♪ ] YELLOW (FLOF), INITIAL (NORMAL [+F; REVEAL []]]
		TIMER MENU [ 4 ] CYAN (FLOF),
TEN KE	Y	[+F;F-T-B 🗃 ]
LEVEL I	PLUS	(VOLUME, MENU) [+F; QUICK OPERATION)
LEVEL I	MINUS	(VOLUME, MENU) [+F; QUICK OPERATION]
UP (POSI., CH-Search, TEXT PAGE, MENU)		
DOWN	(POSI., CH	-Search, TEXT PAGE, MENU)
VIDEO I	NPUT/TV	PREVIOUS
TEXT/M	IIX/TV	TEXT INDEX
	CH. DIS  DOUBL (TEXT ()  MENU  -1  MENU  -2  MENU  -3  MENU  -4  TEN KE  LEVEL ()  UP (PO  DOWN  VIDEO ()	DOUBLE PUSH OF (TEXT CONCEAL,  MENU <tv> -1 <text>  MENU <tv> -2 <text>  MENU <tv> -3 <text>  MENU <tv> -3 <text>  TEN KEY  LEVEL PLUS  UP (POSI, CH-Sea</text></tv></text></tv></text></tv></text></tv>

# INSTALLATION AND SERVICE ADJUSTMENTS

#### **GENERAL INFORMATIONS**

All adjustments are thoroughly checked and corrected when the receiver leaves the factory. Therefore the receiver should operate normally and produce proper colour and B/W pictures upon installation. However, several minor adjustments may be required depending on the particular location in which the receiver is operated.

This receiver is shipped completely in cardboard carton. Carefully draw out the receiver from the carton and remove all packing materials. Plug the power cord into a convenient 220 volts 50 Hz AC two pin power outlet. Turn the receiver ON. Check and adjust all the customer controls such as BRIGHTNESS, CONTRAST and COLOUR Controls to obtain natural colour or B/W picture.

# **AUTOMATIC DEGAUSSING**

A degaussing coil is mounted around the picture tube so that external degaussing after moving the receiver is normally unnecessary, providing the receiver is properly degaussed upon installation. The degaussing coil operates for about 1 second after the power to the receiver is switched ON. If the set is moved or faced in a different direction, the power switch must be switched off at least one hour in order that the automatic degaussing circuit operates properly. Should the chassis or parts of the cabinet become magnetized to cause poor colour purity, use an external degaussing coil. Slowly move the degaussing coil around the faceplate of the picture tube, the sides and front of the receiver and slowly withdraw the coil to a distance of about 2 m before disconnecting it from AC source.

# HIGH VOLTAGE CHECK

**CAUTION**: There is no HIGH **VOLTAGE ADJUST**-MENT on this chassis.

- Connect an accurate high voltage meter to the second anode of the picture tube.
- Turn on the receiver. Set the BRIGHTNESS and CONTRAST Controls to minimum (zero beam current).
- 3. High voltage will be measured below 29.9 kV.
- Rotate the BRIGHTNESS Control to both extremes to be sure the high voltage does not exceed the limit of 29.9 kV under any conditions.

#### **HEIGHT ADJUSTMENT**

- Receive the WG PHILIPS pattern, and set the contrast and colour to centre, and the brightness to centre.
- Change the VERT POSITION SW (\$301) so the round shape in the pattern is located in the centre of screen.
- HEIGHT Control (R351) on MAIN Board changes the size of the picture or pattern, having an equal effect on the top and bottom. Make final adjustment to overscan the mask 2 cm at top and bottom.

#### HORIZONTAL CENTRE ADJUSTMENT

- 1. Receive the WG PHILIPS pattern.
- Set the contrast and colour to centre, and the brightness to centre.
- Adjust Sub Address HPS so the pattern centre can be located at the screen centre.

#### **FOCUS ADJUSTMENT**

Adjust FOCUS Control on FLYBACK TRANS. (T461) for well defined scanning lines in the centre area on the screen.

#### SIF DET ADJUSTMENT

- 1. Connect SIF generator to pin 2 of ICG30 through  $0.01~\mu F$  capacitor.
- 2. Connect the oscilloscope to pin 9 of ICG30.
- 3. Set up the SIF generator as described below.

Sound carrier frequency: 5.74 MHz
Modulation frequency: 1000 Hz
Frequency deviation: ±15 kHz

Signal level : 80 dB $\mu$  (50 ohm load)

- 4. Adjust LG80 for the maximum response of 1000 Hz det-out on scope.
- Connect SIF generator to pin 2 of ICG03 through 0.01 µF capacitor.
- 6. Connect oscilloscope to pin 9 of ICG03.
- 7. Set up the SIF generator as described below.

Sound carrier frequency: 5.5 MHz
Modulation frequency: 1 kHz
Frequency deviation: +15 kHz

Signal level : 80 dB $\mu$  (50 ohm load) 8. Adjust LG05 for the maximum response of 1 kHz

detout on scope.

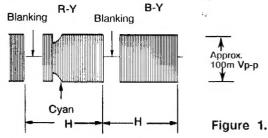
Remove the wire between pin SQ of PG02 and ground.

# BELL COIL (LM01) ADJUSTMENT

Receive SECAM colour bar signal.

2. Connect the synchroscope to the terminal Pin 2 of LM01.

3. Adjust LM01 for the flat level of amplitude in each colour bar waveform on the scope. (See figure 1.)



# IDENT COIL (LM04) ADJUSTMENT

Receive SECAM colour bar signal.

2. Connect the DC voltmeter (Digital Voltmeter) to the pin 23 of IC501.

3. Adjust LM04 for the maximum indication (approx. DC10V) on the meter.

# B-Y, R-Y DEMOD COIL (LM02, LM03) ADJUSTMENT

1. Receive SECAM colour bar signal.

2. Set the COLOUR, BRIGHTNESS and CONTRAST Controls free.

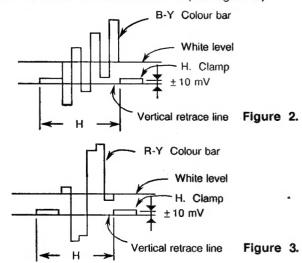
Connect the synchroscope to the pin 62 of IC501.

4. Adjust LM02 so that the white level in picture part reaches to the vertical retrace line. (See figure 2.)

5. Then change the connection of synchroscope from the pin 62 to the pin 60 of IC501.

6. Adjust LM03 so that the white level in picture part

reaches to the vertical retrace line. (See figure 3.)



# **PAL MATRIX ADJUSTMENT**

- 1. Tune in the colour programme of the Philips oattern.
- 2. Set the COLOUR Control to obtain the proper colour.
- 3. If the PAL MATRIX adjustment is incorrect, the Venetian Blind would appear in the colour bars area. This case needs the adjustment.
- 4. At the first, adjust DL PHASE ADJ. Coil (L551) to minimize the Venetian Blind.
- 5. Next adjust 1H-DL ADJ. VR (R551) to minimize the
- 6. If the Venetian Blind still remains, adjust 1H-DL PHASE ADJ. Coil (L551) to minimize the Blind

7. Repeat the item 5 and 6 procedures, adjust the R551 and L551 until the Blind does not appear.

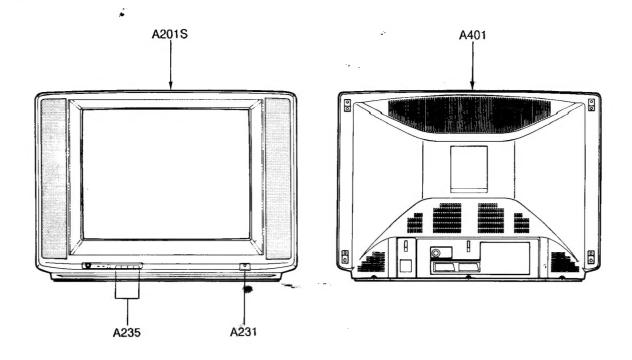
# CRT GREY SCALE ADJUSTMENT

- 1. Tune in an active channel.
- 2. Set "SERVICE MODE" by RMT H.H.U. (F) +  $(\bullet)$  and (1), (0), (4), (8)
- 3. Turn the SCREEN Control (on T461) fully counterclockwise.
- 4. By rotating the RED, GREEN and BLUE CUT OFF Controls (R557, R558, R559) to the mid position.
- 5. Set the GREEN and BLUE DRIVE Controls (R252, R253) to the center.
- 6. Set the "CUT OFF (No Vertical Deflection) MODE" (F) + (2) key) by RMT H.H.U.
- 7. Rotate the SCREEN Control gradually clockwise until the first line appears slightly on the screen. Set the SCREEN Control to this position.
- 8. Adjust the CUT OFF Controls to obtain the slightly lighted horizontal lines in the same levels of three colours (RED, GREEN and BLUE). The lines may look like white if the CUT OFF Controls are adjusted properly.
- 9. Release the "CUT OFF MODE" by RMT H.H.U. ((F) + (2) key)
- 10. Set the CONTRAST and COLOUR Controls to minimum, and BRIGHTNESS Control to the maximum.
- 11. Adjust the BLUE and GREEN DRIVE Controls (R252/R253) to obtain proper white-balanced picture in high light areas.
- 12. Set the BRIGHTNESS and CONTRAST Controls to obtain dark grey raster. Then check the white balance in low brightness. If the white balance is not proper, retouch the CUT OFF Controls and DRIVE Controls to obtain a good white balance in both low and high light areas.
- 13. Exit from the "SERVICE MODE" by turning the power ON/OFF with RMT H.H.U.

# SUB-BRIGHTNESS ADJUSTMENT

- 1. Tune in a colour programme.
- 2. Set the "SERVICE MODE" by RMT H.H.U.
- 3. Set the CONTRAST Control to the maximum and BRIGHT Control to the center.
- 4. Set the COLOUR Control to the minimum.
- 5. Select the "SUB" symbol (F + (Item UP), F + (Item DN)) and adjust the level to the center by LEVEL key of RMT H.H.U. and leave the TV for five minutes in this state.
- 6. Watching the picture well, adjust the SUB-BRIGHT Control in the position (same method as in step No.5) where the picture does not show evidence of blooming in high bright area and not appear too dark in low bright portion.
- Check the proper picture variation by rotating the CONTRAST and BRIGHTNESS Controls to both extremes.
- 8. If the picture does not appear dark with the CONTRAST and BRIGHTNESS Controls turned to minimum, or not appear bright with the controls turned to the maximum, adjust the SUB-BRIGHT Control again for the acceptable picture.
- Exit from the "SERVICE MODE" by turning the power ON/OFF with the RMT H.H.U.

# CABINET REPLACEMENT PARTS LIST



Location <b>No</b> .	Part No.	Description
A201S	23419279	Front Cover
A231	23443970	Button, Power
A235	23443552	Button, Up-Down
A401	23424271	Back Cover
A411	23567668	Label, Model No., B/C
A412	23995762	Label
A701	23523937	Carton Box
A702	23935027	Packing, Bottom
A703	23935059	Packing, Top
A710	23567673	Label, Model No., Carton
B121	23712306	Screw, PP3X.5X6SZN
Y101	23561357	Owner's Manual
Y110	23561396	Sheet

# CHASSIS REPLACEMENT PARTS LIST

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 2 OF THIS MANUAL.

**CAUTION**: The international hazard symbols in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 2. Do not degrade the safety of the receiver through improper servicing.

NOTICE: The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.

# **ABBREVIATIONS:**

(All CD and PF capacitors are ±5%, 50V and all resistors, ±5%, 1/6W unless otherwise noted.)

Location No.	Part No.	Description
CAPACITORS	S	
C101	24815102	Chip, 1000pF, ±10%
C102	24815102	Chip, 1000pF, ±10%
C103	24285102	Chip, $1000pF$ , $\pm 10\%$
C104	24206478	EL, 0.47μF, 50V
C105	24814103	Chip, $0.01\mu\text{F}$ , $+80\%$ , $-20\%$
C106	24814103	Chip, $0.01\mu\text{F}$ , +80%, -20%
C107	24781221	Chip, 220pF
C108	24206478	EL, 0.47μF, 50V
C109	24814103	Chip, $0.01\mu F$ , $+80\%$ , $-20\%$
C110	24203470	EL, 47μF, ±20%, 16V
C111	24815102	Chip, 1000pF, ±10%
C112	24815102	Chip, 1000pF, ±10%
C113	24285102	Chip, 1000pF, ±10%
C114	24814103	Chip, $0.01\mu$ F, +80%, -20%
C115	24285102	Chip, 1000pF, ±10%
C116	24206010	EL, 1μF, 50V
C117	24778181	Chip, 180pF
C118	24814103	Chip, $0.01\mu F$ , $+80\%$ , $-20\%$
C120	24794331	EL, 330μF, 16V
C121	24794221	EL, 220μF, 16V
C122	24814103	Chip, $0.01\mu\text{F}$ , $+80\%$ , $-20\%$
C123	24815102	Chip, 1000pF, ±10%
C124	24203470	EL, 47μF, ±20%, 16V
C125	24814103	Chip, $0.01\mu\text{F}$ , $+80\%$ , $-20\%$
C170	24781120	Chip, 12pF
C171	24814103	Chip, $0.01\mu\text{F}$ , $+80\%$ , $-20\%$
C180	24797229	EL, 2.2μF, ±20%, 50V
C181	24794471	EL, 470μF, ±20%, 16V
C182	24474103	CD, $0.01\mu\text{F}$ , $\pm 30\%$ , $16\text{V}$
C183	24797229	EL, $2.2\mu F$ , $\pm 20\%$ , $50V$
C184	24797229	EL, $2.2\mu F$ , $\pm 20\%$ , $50V$
C186	24474103	CD, $0.01\mu$ F, $\pm 30\%$ , 16V
C187	24232103	CD, $0.01\mu F$ , $+80\%$ , $-20\%$
C188	24232103	CD, $0.01\mu$ F, $+80\%$ , $-20\%$
C189	24797010	EL, 1μF, ±20%, 50V
C190	24212102	CD, 1000pF, ±10%
C191	24474103	CD, 0.01μF, ±30%, 16V
C201	24085981	EL, 10μF, ±20%, 16V
C202	24795101	EL, 100μF, 25V
C203	24474103	CD, 0.01μF, ±30%, 16V

	*	
Location No.	Part No.	Description
C204	÷ 24797220	EL, 22μF, ±20%, 50V
C205	24206478	EL, 0.47μF, 50V
C208	24474103	CD, 0.01μF, ±30%, 16V
C209	24474103	CD, 0.01μF, ±30%, 16V
C210	24436220	CD, 22pF
C212	24474103	CD, 0.01μF, ± <b>30%, 16V</b>
C213	24232103	CD, 0.01μF, +80%, -20%
C214	24794220	EL, 22μF, ±20%, 16V
C215	24212102	CD, 1000pF, ±10%
C216	24794100	EL, 10μF, ±20%, 16V
C217	24436331	CD, 330pF
C220	24473300	CD, 30pF
C240	24797478	EL, 0.47μF, ±20%, 50V
C301	24797229	EL, 2.2μF, ±20%, 50V
C302	24212152	CD, 1500pF, ±10%
C303	24590563	PF, 0.056μF
C312	24590563	PF, 0.056μF
C313	24796221	EL, 220μF, ±20%, 35V
C314	24796102	EL, 1000μF, 35V
C315	24214221	CD, 220pF, ±10%, <b>500V</b>
C316	24795332	EL, 3300μF, 25V
C317	24617912	EL, $2.2\mu F$ , $\pm 10\%$ , 50V
C319	24082057	PF, 0.22μF, 100V
C321	24214391	CD, 390pF, ±10%, <b>500V</b>
C322	24796221	EL, 220μF, ±20%, 35V
C323	24082049	PF, 0.047μF, 100V
C371	24590183	PF, 0.018μF
C372	24617912	EL, 2.2μF, ±10%, 50V
C373	24797478	EL, 0.47μF, ±20%, 50V
C374	24617926	EL, 220μF, ±20%, 16V
C375	24590222	PF, 2200pF
C376	24474102	CD, 1000pF, ±10%
C377	24474222	CD, 2200pF, 16V
C378	24590104	PF, 0.1μF
C402	24353241	CD, 240pF
C403	24797339	EL, 3.3μF, ±20%, 50V
C405	24590203	PF, 0.02μF
C406	24590153	PF, 0.015μF
C407	24590243	PF, 0.024μF
C408	24797100	EL, 10μF, ±20%, <b>5</b> 0V
C409	24232103	CD, 0.01µF, +80%, -20%

Location No.	Part No.	Description
C410	24693562	PF, 5600pF, 100V
<sup>1</sup> C416	24214271	CD, 270pF, ±10%, 500V
C417	24214332	CD, 3300pF, ±10%, 500V
C418	24790100	EL, $10\mu$ F, $\pm 20\%$ , $160$ V
C421	24095755	PF, 0.47μF, 200V
C422	24828683	PF, 0.068μF, 200V
C423	24095824	PF, $0.27\mu$ F, $200$ V
C424	24676479	EL, $4.7\mu$ F, $\pm 20\%$ , $100$ V
<b>⚠ C440</b>	24095888	PF, 0.01μF, ±3%, 160 <b>0V</b>
C441	24214221	CD, 220pF, ±10%, 500V
C443	24214221	CD, 220pF, ±10%, 500V
C445	24095903	PF, $0.056\mu$ F, $\pm 10\%$ , <b>250V</b>
C446	24829273	PF, 0.027μF, 400V
C447	24700479	EL, $4.7\mu$ F, $\pm 20\%$ , $250$ V
C448	24667102	EL, $1000\mu$ F, $\pm 20\%$ , $25$ V
C449	24666471	EL, 470μF, ±20%, 16V
C451	24640908	EL, $33\mu$ F, $\pm 20\%$ , $160V$
<b>⚠ C463</b>	24212222	CD, 2200pF, ±10%
<b>⚠ C464</b>	24082330	PF, 2000pF, ±3%, 1400V
C465	24095758	PF, 0.62μF, 200V
C466	24640933	EL, 1μF, ±20%, 200V
C501	24797220	EL, $22\mu$ F, $\pm 20\%$ , 50V
C505	24590273	PF, 0.027μF
C507	24590103	PF, 0.01μF
C508	24085944	EL, $2.2\mu F$ , $\pm 20\%$ , $50V$ ,
		Non-Polar
C510	24474103	CD, 0.01µF, ±30%, 16V
C511	24474103	CD, $0.01\mu F$ , $\pm 30\%$ , $16V$
C513	24232103	CD, $0.01\mu$ F, $+80\%$ , $-20\%$
C514	24212271	CD, 270pF, ±10%
C515	24797220	EL, 22μF, ±20%, 50V
C516	24590104	PF, 0.1μF
C517	24590104	PF, 0.1μF
C518	24474103	CD, 0.01μF, ±30%, <b>16V</b>
C519	24474103	CD, 0.01μF, ±30%, 16V
C520	24797478	EL, $0.47\mu F$ , $\pm 20\%$ , $50V$
C521	24538474	PF, 0.47μF
C522	24538474	PF, 0.47μF
C523	24538474	PF. 0.47μF
C524	24474103	CD, $0.01\mu$ F, $\pm 30\%$ , 16V
C525	24473270	CD, 27pF
C526	24473270	CD, 27pF
C527	24473270	CD, 27pF
C528	24474102	CD, 1000pF, ±10%
C529	24473150	CD, 15pF
C530	24796220	EL, 22μF, ±20%, 35V
C531	24794100	EL, 10µF, ±20%, 16V
C532	24436101	CD, 100pF
C533	24436101	CD, 100pF
C534	24436101	CD, 100pF
C535	24797100	EL, 10μF, ±20%, 50V
C536	24797478	EL, 0.47μF, ±20%, 50V
C537	24794101	EL, 100μF, ±20%, 16V
C538	24353200	CD, 20pF
C539	24353330	CD, 33pF
C540	24436221	CD, 220pF
C541	24436221	CD, 220pF
C542	24436221	CD, 220pF
C543	24794220	EL, 22μF, ±20%, 16V
C603	24287103	Chip, $0.01\mu\text{F}$ , $+80\%$ , $-20\%$
C606	24203330	EL, $33\mu\text{F}$ , $\pm 20\%$ , $16\text{V}$
C607	24814103	Chip, $0.01\mu\text{F}$ , $+80\%$ , $-20\%$
C620	24795102	EL, 1000μF, ±20%, 25V
C621	24795102	EL, 1000μF, ±20%, 25V
0021	24/33/02	LL, 1000μΓ, ±20%, 20¥

Location No.	Part No.	Description
C622	24795101	EL, 100μF, <b>25V</b>
C623	24538184	PF, 0.18μF
C624	24590104	PF, 0.1μF
C625	24538184	PF, 0.18μF
C633	24590562	PF, 5600pF
C635	24794101	EL, 100μF, ±20%, 16V
C636	24797010	EL, 1μF, ±20%, 50V
C638	24797010	EL, 1μF, ±20%, 50V
C639	24795101	EL, 100μF, 25V
C640 C642	24590562	PF, 5600pF
C643	24794101 24590104	EL, 100μF, ±20%, <b>16V</b> PF, 0.1μF
C644	24797471	EL, 470μF, ±20%, 50V
C645	24590104	PF, 0.1μF
C646	24436101	CD, 100pF
C647	24436101	CD, 100pF
↑ C801	24098999	PF, 0.1μF, ±20%, AC250V
<b>↑ C802</b>	24098999	PF, 0.1μF, ±20%, AC250V
C803	24092281	CD, 4700pF, ±20%, AC250V
C804	24092281	CD, 4700pF, ±20%, AC250V
C805	24092281	CD, 4700pF, ±20%, AC250V
C806	24092281	CD, 4700pF, ±20%, AC250V
C810	24086856	EL, 270μF, ±20%, 400V
C811	24436101	CD, 100pF
C812	24436561	CD, 560pF
C813	24590682	PF, 6800pF
C814	24630747	EL, 22μF, ±20%, 25V
C815	24212102	CD, 1000pF, ±10%
C816	24092339	CD, 330pF, ±10%, 2kV
C818 C820	24095931 24797101	PF, 2200pF, 1600V EL, 100µF, ±20%, <b>50V</b>
C821	24436331	CD, 330pF
C823	24092336	CD, 180pF, ±10%, 2kV
C824	24086939	EL, 330μF, ±20%, 200V
C825	24232103	CD, $0.01\mu$ F, $+80\%$ , $-20\%$
C827	24795102	EL, 1000μF, ±20%, 25V
C828	24214331	CD, 330pF, ±10%, 500V
C829	24797100	EL, 10μF, ±20%, 50V
C830	24797010	EL, 1μF, ±20%, 50V
C831	24709479	EL, 4.7μF, ±20%, 200V
C832	24795102	EL, 1000μF, ±20%, 2 <b>5V</b>
C833	24214331	CD, 330pF, ±10%, 500V
C834	24797222	EL, 2200μF, ±20%, 50V
C835	24436101	CD, 100pF
C837	24590103	PF, 0.01μF FL 10μF +20% 50V
C838	24797100	EL, 10μF, ±20%, 50V PF, 0.47μF
C839 C840	24538474 24538474	PF, 0.47μF PF, 0.47μF
C841	24214331	CD, 330pF, ±10%, 500V
C845	24666101	EL, 100μF, ±20%, 16V
C861	24762471	EL, 470µF, ±20%, 10V
C881	24094656	CD, 2200pF, ±20%, AC400V
C882	24094656	CD, 2200pF, ±20%, AC400V
C885	24598102	PF, 1000pF
C886	24436101	CD, 100pF
C887	24794470	EL, $47\mu$ F, $\pm 20\%$ , $16$ V
C901	24700479	EL, $4.7\mu$ F, $\pm 20\%$ , $250$ <b>V</b>
C902	24095923	PF, 4700pF, 1600V
C903	24212221	CD, 220pF, ±10%
CA11	24794100	EL, 10μF, ±20%, <b>16V</b>
CA12	24794102	EL, 1000μF, 16V
CA13	24794100	EL, 10μF, ±20%, 16V CD, 0.01μF, +80%, -20%
CA14 CA15	24232103 <b>24474103</b>	CD, 0.01μF, ±30%, -20% CD, 0.01μF, ±30%, 16V
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Location		
No.	Part No.	Description
CA16 CA29	24794100 24232103	EL, 10μF, ±20%, 16V CD, 0.01μF, +80%, -20%
CA31	<b>24</b> 436300	CD; 30pF
CA32	24436300	CD, 30pF
CA33	24474102	CD, 1000pF, ±10%
CA36	24590104	PF, 0.1μF
CA70	24797010	EL, 1μF, ±20%, <b>50V</b>
CA71 CA72	24212102 24212472	CD, 1000pF, ±10% CD, 4700pF, ±10%
CA75	24436561	CD, 560pF
CA76	24794330	EL, 33μF, ±20%, 16V
CA77	24232103	CD, $0.01\mu\text{F}$ , $+80\%$ , $-20\%$
CA78	24794100	EL, 10μF, ±20%, 16V
CA98	24797229	EL, 2.2μF, ±20%, 50V
CB01	24436101	CD, 100pF
CF01	24232103	CD, 0.01μF, +80%, <b>-20%</b> EL, 10μF, ±20%, 50V
CF02 CF03	24797100 24474103	CD, 0.01μF, ±30%, 16V
CF04	24797100	EL, 10μ <b>F</b> , ±20%, <b>50V</b>
CF05	24353220	CD, 22pF
CF06	24353220	CD, 22pF
CF07	24232103	CD, $0.01\mu$ F, +80%, -20%
CF08	24590104	PF, 0.1μF
CF09	24085944	EL, 2.2μF, ±20%, 50V,
CE10	24206100	Non-Polar EL, 10μF, 50V
CF10 CF11	24206100 24474103	CD, 0.01μF, ±30%, 16V
CF15	24794470	EL, 47μF, ±20%, 16V
CF16	24353220	CD, 22pF
CF17	24797100	EL, $10\mu$ F, $\pm 20\%$ , 50V
CF18	24590103	PF, 0.01μF
CF19	24794101	EL, 100μF, ±20%, 16V
CF20	24436220	CD, 22pF
CF82 CF83	<b>24</b> 795221 <b>24</b> 797470	EL, 220μ <b>F, ±20%, 25V</b> EL, 47μF, ±20%, 50V
CF84	24794470	EL, 47μF, ±20%, 30V EL, 47μF, ±20%, 16V
CG02	24276470	Chip, 47pF
CG03	24781470	Chip, 47pF
CG05	24287103	Chip, $0.01\mu$ F, $+80\%$ , $-20\%$
CG11	24814103	Chip, $0.01\mu F$ , $+80\%$ , $-20\%$
CG12	24814103	Chip, $0.01\mu$ F, $+80\%$ , $-20\%$
CG13	24203220	EL, $22\mu$ F, $\pm 20\%$ , $16V$ Chip, $0.01\mu$ F, $+80\%$ , $-20\%$
CG14 CG15	24814103 24774680	Chip, 68pF
CG16	24783220	Chip, 22pF
CG17	24781201	Chip, 200pF
CG18	24774150	Chip, 15pF
CG19	24287103	Chip, $0.01\mu$ F, +80%, -20%
CG20	24206010	EL, 1μF, 50V
CG21	24206010	EL, 1μF, 50V
CG22 CG23	<b>24</b> 590152 <b>2</b> 4590152	PF, 1500pF PF, 1500pF
CG24	24794471	EL, 470μF, ±20%, <b>16V</b>
CG25	24206229	EL, 2.2μF, 50V
CG26	24206229	EL, 2.2μF, 50V
CG27	24590332	PF, 3300pF
CG28	24436681	CD, 680pF
CG29	24590104	PF, 0.1μF
CG30	24814103	Chip, 0.01μF, +80%, -20% PF, 0.1μF
CG31 CG34	24590104 24590104	PF, 0.1μF PF, 0.1μF
CG35	24538474	PF, 0.47μF
CG36	24538474	PF, 0.47μF
CG37	24206010	EL, 1μF, 50V
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Location No.	Part No.	Description
CG38	24206010	EL, 1μF, 50V
CG39	24590153	PF, 0.015μF
CG40	24590153	PF, 0.015μF
CG41	24590473	PF, 0.047μF
CG42	24590473	PF, 0.047μF
CG43	24815103	Chip, 0.01 μF, ±10%
CG44 CG45	24590103 24590102	PF, 0.01μF PF, 1000pF
CG60	24794221	EL, 220μF, 16V
CG80	24781201	Chip, 200pF
CG81	24783220	Chip, 22pF
CG82	24774680	Chip, 68pF
CG83	24774150	Chip, 15pF
CG84	24814103	Chip, $0.01\mu\text{F}$ , $+80\%$ , $-20\%$
CG85	24203470	EL, 47μF, ±20%, 16V
CG86	24814103	Chip, $0.01\mu$ F, $+80\%$ , $-20\%$
CG90	24203100	EL, 10μF, ±20%, 16V
CH01	24796479	EL, 4.7μF, ±20%, 35V
CH02	24474101	CD, 100pF, ±10%
CH03	24796479	EL, 4.7μF, ±20%, 35V
CH04	24474101	CD, 100pF, ±10%
CH05	24474271	CD, 270pF, ±10%
CH06 CH07	24794100 24473680	EL, 10μF, ±20%, 16V CD, 68pF
CH07	24473680	CD, 68pF
CH09	24474331	CD, 330pF, ±10%
CH10	24474221	CD, 220pF, ±10%
CH11	24474221	CD, 220pF, ±10%
CH12	24794100	EL, 10μF, ±20%, 16V
CH13	24538474	PF, 0.47μF
CH14	24794221	EL, 220μF, 16V
CH15	24797010	EL, 1μF, ±20%, 50V
CM01	24436201	CD, 200pF
CM02	24436201	CD, 200pF
CM05	24474103	CD, 0.01μF, ±30%, 16V
CM06	24357270	CD, 27pF
CM07	24590563	PF, 0.056μF
CM08	24474103	CD, 0.01μF, ±30%, 16V CD, 20pF
CM09 CM10	24357200 24473270	CD, 20pF CD, 27pF
CM14	24357200	CD, 20pF
CN10	24474101	CD, 100pF, ±10%
CN16	24590273	PF, 0.027μF
CV01	24474103	CD, 0.01µF, ±30%, 16V
CV02	24203100	EL, 10μF, ±20%, 16V
CV03	24794100	EL, 10μF, ±20%, 16V
CV04	24203100	EL, 10μF, ±20%, 16V
CV05	24474103	CD, 0.01µF, ±30%, 16V
CV06	24794100	EL, 10μF, ±20%, 16V
CV07	24797100	EL, $10\mu F$ , $\pm 20\%$ , $50V$
CV08	24794100	EL, 10μF, ±20%, 16V
CV09	24474103	CD, 0.01µF, ±30%, 16V
CV10	24794100	EL, 10μF, ±20%, 16V
CV11	24794100	EL, 10μF, ±20%, 16V
CV12 CV13	24794100 24794100	EL, 10μF, ±20%, 16V EL, 10μF, ±20%, 16V
CV13	24794100	EL, 10μF, ±20%, 16V EL, 10μF, ±20%, 16V
CV14	24794100	EL, $10\mu\text{F}$ , $\pm 20\%$ , $16\text{V}$
CV20	24474102	CD, $1000pF$ , $\pm 10\%$
CV21	24474102	CD, 1000pF, ±10%
CV22	24474102	CD, 1000pF, ±10%
CV23	24793471	EL, $470\mu$ F, $\pm 20\%$ , $10V$
CV24	24797100	EL, $10\mu$ F, $\pm 20\%$ , 50V
CV25	24474102	CD, 1000pF, ±10%

Location	Part No.	Description
No.		<u>-</u>
CV26	24793471	EL, 470μF, ±20%, 10V
CV27	24206339	EL, 3.3μF, 50V
CV29	24590104	PF, 0.1μF
CV30	24474102	CD, 1000pF, ±10%
CV31	24474102	CD, 1000pF, ±10%
CV32	24474102	CD, 1000pF, ±10%
CV33	24474102	CD, 1000pF, ±10%
CV36	24797100	EL, 10μF, ±20%, 50V
CV37	24203100	EL, 10μF, ±20%, 16V
CV38	24203101	EL, 100μF, ±20%, 16V
CV39	24276100	Chip, 10pF
CV47	24794101	EL, 100μF, ±20%, 16V
CV48	24666470	EL, 47μF, ±20%, 16V
CV51	24203101	EL, 100μF, ±20%, 16V
CV70	24794101	EL, 100μF, ±20%, 16V
CV71	24232103	CD, $0.01\mu$ F, $+80\%$ , $-20\%$
CV72	24203100	EL, 10μF, ±20%, 16V
CV73	24474820	CD, 82pF, ±10%
CV82	24794100	EL, 10μF, ±20%, 16V
CV83	24794100	EL, 10μF, ±20%, 16V
CV85	24203100	EL, 10μF, ±20%, 16V
CV86	24203100	EL, 10μF, ±20%, 16V
CV96	24206010	EL, 1μF, 50V
CV97	24206010	EL, 1μF, 50V
CV98	24590562	PF, 5600pF
CV99	24590562	PF, 5600pF
CX02	24538474	PF, 0.47μF
CX03	24538474	PF, 0.47μF
CX04	24538474	PF, 0.47μF
CY51	24797010	EL, $1\mu$ F, $\pm 20\%$ , $50$ V
CY52	24797010	EL, $1\mu$ F, $\pm 20\%$ , 50V
CY53	24797010	EL, $1\mu$ F, $\pm 20\%$ , 50V
CY54	24797010	EL, $1\mu$ F, $\pm 20\%$ , 50V
CY55	24797010	EL, $1\mu$ F, $\pm 20\%$ , $50$ V
CY56	24797010	EL, $1\mu$ F, $\pm 20\%$ , $50$ V
CY57	24206010	EL, 1μF, 50V
CY58	24206010	EL, 1μF, 50V
CY59	24206010	EL, 1μF, 50V
CY60	24797010	EL, 1μF, ±20%, 50V
CY61	24797010	EL, $1\mu$ F, $\pm 20\%$ , 50V
CY62	24797010	EL, $1\mu$ F, $\pm 20\%$ , 50V
CY63	24793221	EL, 220µF, ±20%, 10V
CY64	24590104	PF, 0.1μF
DEGIOTOS		
RESISTORS		
R101	24872122	Chip, 1200 ohm, 1/16W
R102	24871100	Chip, 10 ohm, 1/8W
R103	24872824	Chip, 820k ohm, 1/16W
R104	24872102	Chip, 1000 ohm, 1/16W
R105	24872104	Chip, 100k ohm, 1/16W
R106	24872682	Chip, 6800 ohm, 1/16W
R107	24872391	Chip, 390 ohm, 1/16W
R108	24872561	Chip, 560 ohm, 1/16W
R110	24872562	Chip, 5600 ohm, 1/16W
R111	24872472	Chip, 47 ohm, 1/16W
R112	24872182	Chip, 1800 ohm, 1/16W
R113	24872220	Chip, 22 ohm, 1/16W
R118	24871151	Chip, 150 ohm, 1/8W
R119	24872131	Chip, 130 ohm, 1/16W
R120	24872151	Chip, 150 ohm, 1/16W
R122	24872121	Chip, 120 ohm, 1/16W
R124	24871181	Chip, 180 ohm, 1/8W
R125 R126	24552271	OMF, 270 ohm, 1/2W
N 120	24553680	OMF, 68 ohm, 1W

Location No.	Part No.	Description
R128	24871104	Chip, 100k ohm, 1/8W
R151	24066599	VR, 5k ohm, 1/10W
R153	24066606	VR, 1M ohm, 1/10W
R170	24872102	Chip, 1000 ohm, 1/16W
R171	24872334	Chip, 330k ohm, 1/16W
R201	24366122	CF, 1200 ohm
R202	24366471	CF, 470 ohm
R203 R204	24366472	CF, 4700 ohm
R205	24366152 24366471	CF, 1500 ohm CF, 470 ohm
R206	24871471	Chip, 470 ohm, 1/8W
R207	24872101	Chip, 100 ohm, 1/16W
R208	24552471	OMF, 470 ohm, 1/2W
R209	24871272	Chip, 2700 ohm, 1/8W
R210	24871101	Chip, 100 ohm, 1/8W
R211	24366102	CF, 1k ohm
R212	24366103	CF, 10k ohm
R213	24366152	CF, 1500 ohm
R214(U101)	24872102	Chip, 1000 ohm, 1/16W
R214(U902)	24366122	CF, 1200 ohm
R219	24366472	CF, 4700 ohm
R220 R221	24366223 24366223	CF, 22k ohm
R222	24366223	CF, 22k ohm CF, 300 ohm
R223	24366242	CF, 2400 ohm
R224	24366512	CF, 5100 ohm
R225	24366222	CF, 2200 ohm
R226	24366123	CF, 12k ohm
R227	24366302	CF, 3k ohm
R228	24366681	CF, 680 ohm
R229	24366152	CF, 1500 ohm
R230	24366152	CF, 1500 ohm
R231	24366182	CF, 1800 ohm
R242	24366123	CF, 12k ohm
R243	24366153	CF, 15k ohm
R252 R253	24066597 24066597	VR, 1k ohm, 1/10W
R260	24066597	VR, 1k ohm, 1/10W
R261	24071332	Chip, 3300 ohm, 1/8W Chip Jumper, 3216 type
R301	24366301	CF, 300 ohm
R302	24366244	CF, 240k ohm
R303	24366102	CF, 1k ohm
R304	24366203	CF, 20k ohm
R305	24366161	CF, 160 ohm
R306	24553470	OMF, 47 ohm, 1W
R307	24552561	OMF, 560 ohm, 1/2W
R316	24383271	OMF, 270 ohm, 2W
R317	24366102	CF, 1k ohm
R318	24366623	CF, 62k ohm
R319	24383471	OMF, 470 ohm, 2W
R321	24366123	CF, 12k ohm
R322 R323	24366683 24322119	CF, 68k ohm OMF, 1.1 ohm, 1W
∧ R327	24522119	FR, 4.7 ohm, 1W
R334	24383751	OMF, 750 ohm, 2W
R370	24366164	CF, 160k ohm
R371	24366471	CF, 470 ohm
R372	24366471	CF, 470 ohm
R374	24366223	CF, 22k ohm
R375	24366105	CF, 1M ohm
R376	24366564	CF, 560k ohm
R377	24366104	CF, 100k ohm
R378	24366204	CF, 200k ohm
R380	24366562	CF, 5600 ohm
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Location	Part No.	Description
No.		·
R840	24366105	CF, 1M ohm
R841	24366103	CF, 10k ohm
R842 R843	24000900 24366103	FR, 0.47 ohm, ±10%, 1W CF, 10k ohm
R844	24366105	CF, 10k onm CF, 1M ohm
R845		CF, 3900 ohm
R846	24366562	CF, 5600 ohm
R847		OMF, 47k ohm, 1W
R849	24366272	CF, 2700 ohm
R861	24007554 24383163	Cement, 6800 ohm, 5W
R862 R863	24383163	,,
R871	24366103	CF, 10k ohm
R872	24366103	CF, 10k ohm
R873	24366103	CF, 10k ohm
R874	24366103	CF, 10k onm CF, 10k ohm CF, 5600 ohm CF, 1k ohm
R875	24366562	CF, 5600 ohm
R877 R878	24366102 24366103	
R880	24366682	CF, 10k 0nm CF, 6800 ohm
R882		CF, 51k ohm
R883	24366103	CF, 10k ohm
R884	24366103	CF, 10k ohm
R885		CF, 10k ohm
R886 ↑ R890	24366103 24000630	
R901		CC, 2700 ohm, ±10%, 1/2W
R902	24946272	CC, 2700 ohm, ±10%, 1/2W
R903	24946272	CC, 2700 ohm, ±10%, 1/2W
R920	24000929	
RA01	24366183	CF, 18k ohm
RA02 RA03	24366562 24366103	CF, 5600 ohm CF, 10k ohm
RA04	24366473	CF, 47k ohm
RA05	24366473	
RA06	24366473	CF, 47k ohm
RA07	24366222	CF, 2200 ohm
RA08	24366101	CF, 100 ohm
RA10 RA11	24366104	CF, 100k ohm CF, 10k ohm
RA13	24366103	CF, 1k ohm
RA14	24366473	CF, 47k ohm
RA15	24366103	CF, 10k ohm
RA17	24366103	CF, 10k ohm
RA18	24366103	CF, 10k ohm
RA19 RA20	24366102 24366103	CF, 1k ohm CF, 10k ohm
RA21	24366561	CF, 10k onm CF, 560 ohm
RA22	24366561	CF, 560 ohm
RA23	24366103	CF, 10k ohm
RA29	24366103	CF, 10k ohm
RA32	24366473	CF, 47k ohm
RA33 RA37	24366473 24366473	CF, 47k ohm CF, 47k ohm
RA45	24366183	CF, 47k ohm
RA46	24366123	CF, 12k ohm
RA47	24366152	CF, 1500 ohm
RA48	24366473	CF, 47k ohm
RA56	24366123	CF, 12k ohm
RA57 RA58	24366392 24366152	CF, 3900 ohm CF, 1500 ohm
RA59	24366392	CF, 1900 ohm
RA60	24366392	CF, 3900 ohm
RA61	24366102	CF, 1k ohm

Location <b>No.</b>	Part No.	Description
RA62	24366103	CF, 10k ohm
RA63	24366103	CF, 10k ohm
RA66	24366102	CF, 1k ohm
RA67	24366153	CF, 15k ohm
RA70	24366561	CF, 560 ohm
RA71	24366564	CF, 560k ohm
RA72	24366563	CF, 56k ohm
RA73	24366123	CF, 12k ohm
RA74	24366392	CF, 3900 ohm
RA75 RA76	24366103	CF, 10k ohm CF, 47k ohm
RA79	24366473 24366153	CF, 47k ohm CF, 15k ohm
RA81	24366101	CF, 100 ohm
RA82	24366101	CF, 100 ohm
RA83	24366103	CF, 10k ohm
RA84	24366103	CF, 10k ohm
RA85	24366103	CF, 10k ohm
RA86	24366103	CF, 10k ohm
RA87	24366103	CF, 10k ohm
RA89	24366471	CF, 470 ohm
RA90	24366391	CF, 390 ohm
RA91	24366223	CF, 22k ohm
RA92 RA93	24366473	CF, 47k ohm
RA95	24366391 24366473	CF, 390 ohm CF, 47k ohm
RA96	24366102	CF, 1k ohm
RA97	24366101	CF, 100 ohm
RA98	24366101	CF, 100 ohm
RB01	24366103	CF, 10k ohm
RB02	24366332	CF, 3300 ohm
RB03	24366103	CF, 10k ohm
RB04	24366103	CF, 10k ohm
RB05	24366332	CF, 3300 ohm
RB06	24366473	CF, 47k ohm
RB11	24366331	CF, 330 ohm
RB12	24366331	CF, 330 ohm
RF03 RF04	24366100	CF, 10 ohm CF, 27k ohm
RF05	24366273 24366472	CF, 4700 ohm
RF06	24366103	CF, 10k ohm
RF07	24366103	CF, 10k ohm
RF08	24366101	CF, 100 ohm
RF09	24366101	CF, 100 ohm
RF11	24366272	CF, 2700 ohm
RF12	24366103	CF, 10k ohm
RF13	24366101	CF, 100 ohm
RF14	24366101	CF, 100 ohm
RF15	24366392	CF, 3900 ohm
RF16	24366682	CF, 6800 ohm
RF17 RF18	24366332	CF, 3300 ohm
RF19	24366682 24366101	CF, 6800 ohm CF, 100 ohm
RF80	24546279	FR, 2.7 ohm, 1/2W
RF81	24383153	OMF, 15k ohm, 2W
RF83	24546279	FR, 2.7 ohm, 1/2W
RF84	24366122	CF, 1200 ohm
RG02	24872361	Chip, 360 ohm, 1/16W
RG04	24872563	Chip, 56k ohm, 1/16W
RG05	24872563	Chip, 56k ohm, 1/16W
RG06	24872102	Chip, 1000 ohm, 1/16W
RG07	24872102	Chip, 1000 ohm, 1/16W
RG08	24872332	Chip, 3300 ohm, 1/16W
RG10	24872153	Chip, 15k ohm, 1/16W
RG11	24872102	Chip, 1000 ohm, 1/16W

Location Description	
No. Part No. Description	
D004 01000100 07 51 51	
R381 24366102 CF, 1k ohm R390 24366273 CF, 27k ohm	
R402 24366273 CF, 27k ohm	
R403 24366302 CF, 3k ohm R404 24552432 OMF, 4300 ohm, 1/2V	V -
R405 24366431 CF, 430 ohm	
R408 24366682 CF, 6800 ohm	
R409 24366434 CF, 430k ohm	
R410 24552472 OMF, 4700 ohm, 1/2V	V .
R411 24366361 CF, 360 ohm	
R412 24366221 CF, 220 ohm R416 24007620 Cement, 4300 ohm, 5	14/
R418 24553432 OMF, 4300 ohm, 1W	
R419 24942510 CC, 51 ohm, 1/2W	
R420 24553102 OMF, 1k ohm, 1W	
R422 24366102 CF, 1k ohm	
R423 24366102 CF, 1k ohm	
R424 24366103 CF, 10k ohm	
R425 24547399 FR, 3.9 ohm, 1W	
R427 24366392 CF, 3900 ohm	
R440 24552103 OMF, 10k ohm, 1/2W	
R441 24376513 CF, 51k ohm, 1/2W A R444 24323828 OMF, 0.82 ohm, 2W	
R446 24532151 FR, 150 ohm, 1W	
∧ R448 24323338 OMF, 0.33 ohm, 2W	
R502 24366334 CF, 330k ohm	
<b>R504</b> 24366391 CF, 390 ohm	
R507 24366822 CF, 8200 ohm	
<b>R508</b> 24366391 CF, 390 ohm	
<b>R509</b> 24366122 CF, 1200 ohm	
R510 24366332 CF, 3300 ohm	
R511 24366202 CF, 2k ohm R512 24366182 CF, 1800 ohm	
R513 24366122 CF, 1200 ohm R514 24366223 CF, 22k ohm	
R515 24366221 CF, 220 ohm	
R516 24366221 CF, 220 ohm	
R517 24366221 CF, 220 ohm	
R518 24366223 CF, 22k ohm	
R519 24366475 CF, 4.7M ohm	
R521 24366102 CF, 1k ohm	
R522 24366185 CF, 1.8M ohm R527 24366821 CF, 820 ohm	
R528 24366681 CF, 680 ohm	
R529 24366101 CF, 100 ohm	
R530 24366101 CF, 100 ohm	
<b>R532</b> 24366102 CF, 1k ohm	
R533 24366162 CF, 1600 ohm	
R535 24366471 CF, 470 ohm	
R537 24366162 CF, 1600 ohm	
R538 24366471 CF, 470 ohm	
R539 24366162 CF, 1600 ohm R541 24366821 CF, 820 ohm	
R542 24366241 CF, 240 ohm	
R543 24366103 CF, 10k ohm	
R544 24366101 CF, 100 ohm	
R545 24366102 CF, 1k ohm	
R546 24366333 CF, 33k ohm	
R547 24366102 CF, 1k ohm	
R548 24366102 CF, 1k ohm	
R549 24366102 CF, 1k ohm	
R551 24066955 VR, 1k ohm, 1/10W R557 24066600 VR, 10k ohm, 1/10W	
R558 24066600 VR, 10k ohm, 1/10W	
2 100000 VII, 10K 0IIIII, 1710VV	

Location No.	Part No.	Description
R559	24066600	VR, 10k ohm, 1/10W
R565	24366560	CF, 56 ohm
R566	24366560	CF, 56 ohm
R567	24366560	CF, 56 ohm
R568	24366102	CF, 1k ohm
R570	24366272	CF, 2700 ohm
R571	24366272	CF, 2700 ohm
R572	24366272	CF, 2700 ohm
R580	24366241	CF, 240 ohm
R581	24366471	CF, 470 ohm
R591	24383153	OMF, 15k ohm, 2W
R592	24383153	OMF, 15k ohm, 2W
R593 R601	24383153 24872242	OMF, 15k ohm, 2W
R602	24872183	Chip, 2400 ohm, 1/16W Chip, 18k ohm, 1/16W
R603	24872202	Chip, 2000 ohm, 1/16W
R604	24872271	Chip, 270 ohm, 1/16W
R605	24553430	OMF, 43 ohm, 1W
R606	24872821	Chip, 820 ohm, 1/16W
R607	24872430	Chip, 43 ohm, 1/16W
R614	24872271	Chip, 270 ohm, 1/16W
R630	24366332	CF, 3300 ohm
R631	24366332	CF, 3300 ohm
R638	24366432	CF, 4300 ohm
R640	24366222	CF, 2200 ohm
R641	24366432	CF, 4300 ohm
R643	24366222	CF, 2200 ohm
R644 R645	24321229	OMF, 2.2 ohm, 1/2W OMF, 2.2 ohm, 1/2W
R646	24321229 24366223	CF, 22k ohm
R647	24366223	CF, 22k ohm
R649	24366913	CF, 91k ohm
R665	24552181	OMF, 180 ohm, 1/2W
R666	24552181	OMF, 180 ohm, 1/2W
R668	24366103	CF, 10k ohm
R669	24366101	CF, 100 ohm
R670	24366223	CF, 22k ohm
R675	24366101	CF, 100 ohm
R676	24366101	CF, 100 ohm
R801	24004914	CC, 5.6M ohm, 1/2W
<b>№ R802</b>	24007857	Cement, 6.2 ohm, 15W
R810	24377274 24366103	CF, 270k ohm, 1W CF, 10k ohm
R811 R812	24366103	CF, 1k ohm
R813	24366102	CF, 1k ohm
R814	24366823	CF, 82k ohm
R815	24366221	CF, 220 ohm
R816	24367471	CF, 470 ohm, ±2%
R817	24321398	OMF, 0.39 ohm, 1/2W
R818	24384153	OMF, 15k ohm, 3W
R819	24366689	CF, 6.8 ohm
R820	24552102	OMF, 1k ohm, 1/2W
R821	24007743	Cement, 180 ohm, 10W
R822	24366390	CF, 39 ohm
R824	24366123	CF, 12k ohm
R825 R826	24381220 24366102	OMF, 22 ohm, 1/2W CF, 1k ohm
R827	24366102	CF, 1k ohm
R830	24383303	OMF, 30k ohm, 2W
R831	24384123	OMF, 12k ohm, 3W
R836	24321228	OMF, 0.22 ohm, 1/2W
R837	24546109	FR, 1 ohm, 1/2W
R838	24383102	OMF, 1k ohm, 2W
R839	24366103	CF, 10k ohm
1		

Location No.	Part No.	Description
RG14	24872223	Chip, 22k ohm, 1/16W
RG19	24872103	Chip, 10k ohm, 1/16W
RG31	<b>24872101</b>	Chip, 100 ohm, 1/16W
RG32	24872101	Chip, 100 ohm, 1/16W
RG34	24872562	Chip, 5600 ohm, 1/16W
RG35	24872432	Chip, 4300 ohm, 1/16W
RG36	24872472	Chip, 47 ohm, 1/16W
RG37	24872563	Chip, 56k ohm, 1/16W
RG38	24872101	Chip, 100 ohm, 1/16W
RG40	24872101	Chip, 100 ohm, 1/16W
RG42 RG44	24872101 24872101	Chip, 100 ohm, 1/16W
RG45	24872512	Chip, 100 ohm, 1/16W Chip, 5100 ohm, 1/16W
RG46	24872512	Chip, 5100 ohm, 1/16W
RG47	24872272	Chip, 2700 ohm, 1/16W
RG50	24066926	VR, 10k ohm, 1/10W
RG60	24553101	OMF, 100 ohm, 1W
RG61	24872152	Chip, 1500 ohm, 1/16W
RG62	24872102	Chip, 1000 ohm, 1/16W
RG63	24872222	Chip, 2200 ohm, 1/16W
RG64	24872273	Chip, 27k ohm, 1/16W
RG65	24872133	Chip, 13k ohm, 1/16W
RG66	24872152	Chip, 1500 ohm, 1/16W
RG67	24872273	Chip, 27k ohm, 1/16W
RG68 RG69	24872133	Chip, 13k ohm, 1/16W
RG70	24871102 24872222	Chip, 1k ohm, 1/8W Chip, 2200 ohm, 1/16W
RG81	24872152	Chip, 1500 ohm, 1/16W
RG82	24872162	Chip, 1600 ohm, 1/16W
RG83	24872153	Chip, 15k ohm, 1/16W
RG84	24872102	Chip, 1000 ohm, 1/16W
RG85	24872471	Chip, 470 ohm, 1/16W
RH01	24366102	CF, 1k ohm
RH02	24366752	CF, 7500 ohm
RH03	24366102	CF, 1k ohm
RH04	24366681	CF, 680 ohm
RH05	24366183	CF, 18k ohm
RH06	24366223	CF, 22k ohm
RH07 RH08	24366101 24366112	CF, 100 ohm CF, 1100 ohm
RH09	24366272	CF, 2700 ohm
RH10	24366272	CF, 2700 ohm
RH11	24366222	CF, 2200 ohm
RH12	24366112	CF, 1100 ohm
RH13	24366101	CF, 100 ohm
RH14	24366302	CF, 3k ohm
RH15	<b>24</b> 366912	CF, 9100 ohm
RH16	24366472	CF, 4700 ohm
RH17	24366272	CF, 2700 ohm
RH18	24546919	FR, 9.1 ohm, 1/2W
RH19	24367122 24366273	CF, 1200 ohm, ±2%
RH20 RH21	24366273 24366183	CF, 27k ohm
RM03	<b>2</b> 4366272	CF, 18k ohm CF, 2700 ohm
RM04	<b>24</b> 366432	CF, 4300 ohm
RM05	24366221	CF, 220 ohm
RM06	24366271	CF, 270 ohm
RM07	24366475	CF, 4.7M ohm
RM08	24366333	CF, 33k ohm
RN08	24366103	CF, 10k ohm
RN10	24366562	CF, 5600 ohm
RN32	24366243	CF, 24k ohm
RV02	24366101	CF, 100 ohm
RV03	24366101	CF, 100 ohm

Location No.	Part No.	Description
RV04	24366101	CF, 100 ohm
RV05	24366101	CF, 100 ohm
RV06	24366101	CF, 100 ohm
RV07	24366101	CF, 100 ohm
RV08	24366101	CF, 100 ohm
RV09	24366101	CF, 100 ohm
RV10	24366101	CF, 100 ohm
RV11	24366101	CF, 100 ohm
RV12	24366101	CF, 100 ohm
RV13	24366101	CF, 100 ohm
RV14	24366101	CF, 100 ohm
RV15	24366101	CF, 100 ohm
RV18	24366104	CF, 100k ohm
RV19	24366104	CF, 100k ohm
RV20	24366104	CF, 100k ohm
RV21	24366104	CF, 100k ohm
RV22	24366104	CF, 100k ohm
RV23	24366104	CF, 100k ohm
RV24	24366471	CF, 470 ohm
RV26	24366680	CF, 68 ohm
RV33	24871561	Chip, 560 ohm, 1/8W
RV34(U101)	24872102	Chip, 1000 ohm, 1/16W
RV34(U902)	24366102	CF, 1k ohm
RV35	24872471	Chip, 470 ohm, 1/16W
RV36	24872103	Chip, 10k ohm, 1/16W
RV37 RV39	24872332	Chip, 3300 ohm, 1/16W
RV40	24366910 24366680	CF, 91 ohm CF, 68 ohm
RV41	24366103	•
RV42	24366750	CF, 10k ohm CF, 75 ohm
RV43	24366750	CF, 75 ohm CF, 75 ohm
RV44	24366750	CF, 75 ohm
RV45	24366750	CF, 75 ohm
RV51	24552101	OMF, 100 ohm, 1/2W
RV52	24872102	Chip, 1000 ohm, 1/16W
RV53	24871101	Chip, 100 ohm, 1/8W
RV56	24552161	OMF, 160 ohm, 1/2W
RV60	24552101	OMF, 100 ohm, 1/2W
RV69	24366102	CF, 1k ohm
RV70	24366471	CF, 470 ohm
RV73	24366910	CF, 91 ohm
RV74	24366103	CF, 10k ohm
RV75	24366821	CF, 820 ohm
RV76	24366201	CF, 200 ohm
RV77	24366101	CF, 100 ohm
RV78	24366101	CF, 100 ohm
RV79	24552391	OMF, 390 ohm, 1/2W
RV80	24366102	CF, 1k ohm
RV81	24366101	CF, 100 ohm
RV82	24366621	CF, 620 ohm
`RV83	24366621	CF, 620 ohm
RV84	24366621	CF, 620 ohm
RV85	24366621	CF, 620 ohm
RV86	24366471	CF, 470 ohm
RW04	24366101	CF, 100 ohm
RW07 RW21	24366101	CF, 100 ohm
RW22	24366471 24366471	CF, 470 ohm CF, 470 ohm
RW24	24366471	CF, 470 ohm
RW25	24366471	CF, 470 ohm CF, 470 ohm
RW26	24366104	CF, 470 01111 CF, 100k ohm
RW28	24366472	CF, 4700 ohm
RW29	24366104	CF, 100k ohm
RW80	24366101	CF, 100 ohm

RW81 24366101 CF, 100 ohm RW83 24552161 OMF, 160 ohm, 1/2W RY01 24366473 CF, 47k ohm RY02 24366183 CF, 18k ohm RY03 24366391 CF, 390 ohm RY04 24366473 CF, 47k ohm RY51 24366101 CF, 100 ohm RY52 24366101 CF, 100 ohm RY53 24366101 CF, 100 ohm RY54 24366101 CF, 100 ohm RY55 24366181 CF, 180 ohm RY56 24366181 CF, 180 ohm RY57 24366181 CF, 180 ohm RY57 24366181 CF, 180 ohm RY61 24366152 CF, 1500 ohm RY62 24366511 CF, 510 ohm RY63 24366101 CF, 100 ohm RY64 24366101 CF, 100 ohm RY65 24366101 CF, 100 ohm RY66 24366122 CF, 1200 ohm RY66 24366122 CF, 1200 ohm	
RW83 24552161 OMF, 160 ohm, 1/2W RY01 24366473 CF, 47k ohm RY02 24366183 CF, 18k ohm RY03 24366391 CF, 390 ohm RY04 24366473 CF, 47k ohm RY51 24366101 CF, 100 ohm RY52 24366101 CF, 100 ohm RY53 24366101 CF, 100 ohm RY54 24366101 CF, 100 ohm RY55 24366181 CF, 180 ohm RY56 24366181 CF, 180 ohm RY57 24366181 CF, 180 ohm RY57 24366181 CF, 180 ohm RY61 24366152 CF, 1500 ohm RY62 24366511 CF, 510 ohm RY63 24366101 CF, 100 ohm RY64 24366101 CF, 100 ohm RY65 24366101 CF, 100 ohm RY66 24366101 CF, 100 ohm	
RY02 24366183 CF, 18k ohm RY03 24366391 CF, 390 ohm RY04 24366473 CF, 47k ohm RY51 24366101 CF, 100 ohm RY52 24366101 CF, 100 ohm RY53 24366101 CF, 100 ohm RY54 24366101 CF, 100 ohm RY55 24366181 CF, 180 ohm RY56 24366181 CF, 180 ohm RY57 24366181 CF, 180 ohm RY61 24366152 CF, 1500 ohm RY62 24366511 CF, 510 ohm RY63 24366101 CF, 100 ohm RY64 24366101 CF, 100 ohm RY65 24366101 CF, 100 ohm RY65 24366101 CF, 100 ohm RY66 24366101 CF, 100 ohm RY66 24366101 CF, 100 ohm	
RY03 24366391 CF, 390 ohm RY04 24366473 CF, 47k ohm RY51 24366101 CF, 100 ohm RY52 24366101 CF, 100 ohm RY53 24366101 CF, 100 ohm RY54 24366101 CF, 100 ohm RY55 24366181 CF, 180 ohm RY56 24366181 CF, 180 ohm RY57 24366181 CF, 180 ohm RY61 24366152 CF, 1500 ohm RY62 24366511 CF, 510 ohm RY63 24366101 CF, 100 ohm RY64 24366101 CF, 100 ohm RY65 24366101 CF, 100 ohm RY65 24366101 CF, 100 ohm RY66 24366101 CF, 100 ohm RY66 24366122 CF, 1200 ohm	
RY04 24366473 CF, 47k ohm RY51 24366101 CF, 100 ohm RY52 24366101 CF, 100 ohm RY53 24366101 CF, 100 ohm RY54 24366101 CF, 100 ohm RY55 24366181 CF, 180 ohm RY56 24366181 CF, 180 ohm RY57 24366181 CF, 180 ohm RY61 24366152 CF, 1500 ohm RY62 24366511 CF, 510 ohm RY63 24366101 CF, 100 ohm RY64 24366101 CF, 100 ohm RY65 24366101 CF, 100 ohm RY66 24366101 CF, 100 ohm RY66 24366102 CF, 1200 ohm	
RY51 24366101 CF, 100 ohm RY52 24366101 CF, 100 ohm RY53 24366101 CF, 100 ohm RY54 24366101 CF, 100 ohm RY55 24366181 CF, 180 ohm RY56 24366181 CF, 180 ohm RY57 24366181 CF, 180 ohm RY61 24366152 CF, 1500 ohm RY62 24366511 CF, 510 ohm RY63 24366101 CF, 100 ohm RY64 24366101 CF, 100 ohm RY65 24366101 CF, 100 ohm RY66 24366102 CF, 1200 ohm	
RY52 24366101 CF, 100 ohm RY53 24366101 CF, 100 ohm RY54 24366101 CF, 100 ohm RY55 24366181 CF, 180 ohm RY56 24366181 CF, 180 ohm RY57 24366181 CF, 180 ohm RY61 24366152 CF, 1500 ohm RY62 24366511 CF, 510 ohm RY63 24366101 CF, 100 ohm RY64 24366101 CF, 100 ohm RY65 24366101 CF, 100 ohm RY66 24366122 CF, 1200 ohm	
RY53 24366101 CF, 100 ohm  RY54 24366101 CF, 100 ohm  RY55 24366181 CF, 180 ohm  RY56 24366181 CF, 180 ohm  RY57 24366181 CF, 180 ohm  RY61 24366152 CF, 1500 ohm  RY62 24366511 CF, 510 ohm  RY63 24366101 CF, 100 ohm  RY64 24366101 CF, 100 ohm  RY65 24366101 CF, 100 ohm  RY66 24366122 CF, 1200 ohm	
RY54 24366101 CF, 100 ohm RY55 24366181 CF, 180 ohm RY56 24366181 CF, 180 ohm RY57 24366181 CF, 180 ohm RY61 24366152 CF, 1500 ohm RY62 24366511 CF, 510 ohm RY63 24366101 CF, 100 ohm RY64 24366101 CF, 100 ohm RY65 24366101 CF, 100 ohm RY66 24366122 CF, 1200 ohm	
RY55 24366181 CF, 180 ohm RY56 24366181 CF, 180 ohm RY57 24366181 CF, 180 ohm RY61 24366152 CF, 1500 ohm RY62 24366511 CF, 510 ohm RY63 24366101 CF, 100 ohm RY64 24366101 CF, 100 ohm RY65 24366101 CF, 100 ohm RY66 24366122 CF, 1200 ohm	- 1
RY56 24366181 CF, 180 ohm RY57 24366181 CF, 180 ohm RY61 24366152 CF, 1500 ohm RY62 24366511 CF, 510 ohm RY63 24366101 CF, 100 ohm RY64 24366101 CF, 100 ohm RY65 24366101 CF, 100 ohm RY66 24366122 CF, 1200 ohm	
RY57 24366181 CF, 180 ohm RY61 24366152 CF, 1500 ohm RY62 24366511 CF, 510 ohm RY63 24366101 CF, 100 ohm RY64 24366101 CF, 100 ohm RY65 24366101 CF, 100 ohm RY66 24366122 CF, 1200 ohm	- 1
RY61 24366152 CF, 1500 ohm RY62 24366511 CF, 510 ohm RY63 24366101 CF, 100 ohm RY64 24366101 CF, 100 ohm RY65 24366101 CF, 100 ohm RY66 24366122 CF, 1200 ohm	
RY62 24366511 CF, 510 ohm RY63 24366101 CF, 100 ohm RY64 24366101 CF, 100 ohm RY65 24366101 CF, 100 ohm RY66 24366122 CF, 1200 ohm	- 1
RY63 24366101 CF, 100 ohm RY64 24366101 CF, 100 ohm RY65 24366101 CF, 100 ohm RY66 24366122 CF, 1200 ohm	- 1
RY64 24366101 CF, 100 ohm RY65 24366101 CF, 100 ohm RY66 24366122 CF, 1200 ohm	- 1
RY65 24366101 CF, 100 ohm RY66 24366122 CF, 1200 ohm	- 1
RY66 24366122 CF, 1200 ohm	- 1
COILS & TRANSFORMERS	
L101 23262819 Coil, PIF, TRF1071D	- 1
L102 23238704 Coil, Peaking, TRF4680AJ	
L103 23238704 Coil, Peaking, TRF4680AJ	
L104 23262650 Coil, IF, TRF1149D	
L107 23262951 Coil, RF Choke, TRF1019	
L108 23238558 Coil, Peaking, TRF4R47AJ	
L151 23262783 Coil, IF, TRF1105	
L152 23262813 Coil, IF, TRF1077D	
L201 23238714 Coil, Peaking, TRF4100AJ L202 23238718 Coil, Peaking, TRF4479AJ	
L202 23238718 Coil, Peaking, TRF4479AJ L203 23238914 Coil, Peaking, TRF4470AC	
L204 23238714 Coil, Feaking, TRF4100AJ	
L208 23238704 Coil, Peaking, TRF4680AJ	
L220 23238706 Coil, Peaking, TRF4470AJ	
L221 23238709 Coil, Peaking, TRF4270AJ	
L222 23238710 Coil, Peaking, TRF4220AJ	
L311 23103859 Coil (Ferrite Bead), TEM20	
L315 23238714 Coil, Peaking, TRF4100AJ	
L370 23238702 Coil, Peaking, TRF4101AJ	
L405 23221685 Coil, Choke, TLN3193	
L406 23103859 Coil (Ferrite Bead), TEM2	<sub>011</sub>
L411 23233097 Coil, Linearity, TLN2149G	
L412 23221936 Coil, Choke, TLN3041	
L421 23211897 Coil, Choke, AT4043/100T	.
L422 23221738 Coil, Choke, TLN3132D	
L423 23211896 Coil, Choke, AT4043/60T	
⚠ L462 DY, Supplied with V901	1
L503 23238714 Coil, Peaking, TRF4100AJ	
L525 23238708 Coil, Peaking, TRF4330AJ	
L551 23250972 Coil, 1H-Delay Matching, TRF5418D	
L590 23289221 Coil, Peaking, TRF4221AF	:
L591 23238714 Coil, Peaking, TRF4100AJ	
L601 23238714 Coil, Peaking, TRF4100AJ	
L801 23221077 Coil, Choke, TLN1015S	1
L802 23103859 Coil (Ferrite Bead), TEM2	011
L803 23221747 Coil, Choke, TRF9253D	
L804 23221747 Coil, Choke, TRF9253D	
L806 23103859 Coil (Ferrite Bead), TEM2	011
L829 23238714 Coil, Peaking, TRF4100AJ	
L830 23222694 Coil, Width, TLN2026	

Location No.	Part No.	Description
L833	23222694	Coil, Width, TLN2026
L834	23103859	Coil (Ferrite Bead), TEM2011
<u>∧</u> L901	23200202	Coil, Degaussing,
		TSB-2329AR
LA01	23238562	Coil, Peaking, TRF4109AJ
LA12	23221803	Coil, Choke, TLN3040D
LB01	23262001	Coil, IF, TRF1166D
LF01	23238712	Coil, Peaking, TRF4150AJ
LF02	23238712	Coil, Peaking, TRF4150AJ
LF03	23238720	Coil, Peaking, TRF4339AJ
LF04	23238562	Coil, Peaking, TRF4109AJ
LF05	23238714	Coil, Peaking, TRF4100AJ
LF06	23238714	Coil, Peaking, TRF4100AJ
LF0 <b>7</b> LF0 <b>8</b>	23238714 23238714	Coil, Peaking, TRF4100AJ Coil, Peaking, TRF4100AJ
LF09	23238714	Coil, Peaking, TRF4229AJ
LF10	23238506	Coil, Peaking, TRF4229AJ
LF11	23103859	Coil (Ferrite Bead), TEM2011
LF12	23238506	Coil, Peaking, TRF4229AJ
LF13	23238714	Coil, Peaking, TRF4100AJ
LF15	23103859	Coil (Ferrite Bead), TEM2011
LF83	23222694	Coil, Width, TLN2026
LF84	23222694	Coil, Width, TLN2026
LG01	23262808	Coil, IF, TRF1082
LG04	23238713	Coil, Peaking, TRF4120AJ
LG05	23232946	Coil, Variable, TRF3073D
LG80	23232946	Coil, Variable, TRF3073D
LM01	23262797	Coil, IF, TRF1093D
LM02	23262002 23262002	Coil, IF, TRF1167D
LM03 LM04	23262798	Coil, IF, TRF1167D Coil, IF, TRF1092D
LV01	23238710	Coil, Peaking, TRF4220AJ
LV03	23238714	Coil, Peaking, TRF4100AJ
<b>△ T401</b>	23224997	Transformer, Horiz. Drive,
		TLN1027
<u> </u>	23236404	Transformer, Flyback, AT2078/25
T801	23211891	Line Filter, TRF3164
<b>↑</b> T803	23217110	Transformer, Converter,
		47317550
TN01	23232002	Coil, Variable, TRF3520D
TN02	23262843	Coil, PIF Trap, TRF1457D
SEMICOND	UCTORS	
IC101	23318439	IC, M52008P
IC303	23119142	IC, AN5521
IC371	B0383680	IC, TA8739P
IC408	23319203	IC, MC7812CT
IC501	B0383970	IC, TA8783N
IC605	23318413 23318232	IC, LA4282 IC, TDA4601
IC801 IC805	23318299	IC, L78MR05-FA
1C833	23319305	IC. SE140N LF4
ICA01	23319614	IC, CXP80420-121
ICA07	23319016	IC, μPD6254CX
ICF02	23319143	IC, SAA5246P/E
ICF03	23319001	IC, IMS1630LP12
ICG01	23318023	IC, TDA6611
ICG03	B0325290	
ICG30	B0325290	· ·
ICV01	B0383940	
ICV22 ICV23	B0370110 B0370110	·
ICY50	B0383930	•

Location No.	Part No.	Description
Q102	A6357139	Transistor, 2SC3125 FA-6
Q103	A6357139	Transistor, 2SC3125 FA-6
Q202	<b>23</b> 114691	Transistor, BC557A
Q203	A6335477	Transistor, 2SC2712-Y
Q204	A6534040	Transistor, 2SA1015-Y
Q206	23114689	Transistor, BC547A
Q207	23114689	Transistor, BC547A
Q208 Q220	23114689 23114689	Transistor, BC547A Transistor, BC547A
Q402	A678971D	Transistor, 2SC1569 FA-5
∆ Q404	<b>23314376</b>	Transistor, ON4408
Q421	23114632	Transistor, BC547B
0422	A6358055	Transistor, 2SC3182N FA-1
Q505	A6363200	Transistor, 2SC3619
Q506	23114689	Transistor, BC547A
Q507	A6363200	Transistor, 2SC3619
Q508	<b>23114689</b>	Transistor, BC547A
Q509	A6363200	Transistor, 2SC3619
Q510	23114689	Transistor, BC547A
Q512	23114689	Transistor, BC547A
Q514	23114688	Transistor, BC327
Q516	23114689	Transistor, BC547A
Q546 Q601	23114689 A6335477	Transistor, BC547A Transistor, 2SC2712-Y
Q602	A6335477	Transistor, 2SC2712-Y
Q604	23114691	Transistor, BC557A
Q609	A6342200	Transistor, 2SC2878-A
Q610	A6342200	Transistor, 2SC2878-A
Q802	A6868767	Transistor, 2SD1428
Q810	23114632	Transistor, BC547B
Q811	23114632	Transistor, BC547B
Q812	A6342200	Transistor, 2SC2878-A
Q813	<b>23114632</b>	Transistor, BC547B
Q815	23114632	Transistor, BC547B
Q816	23114632	Transistor, BC547B
Q817	23114632	Transistor, BC547B
Q840 Q841	23114546 A6547250	Transistor, BC557B Transistor, 2SA1320
Q842	A6325067	Transistor, 2SC2230A-Y
Q843	A6547303	Transistor, 2SA1321
Q844	23114546	Transistor, BC557B
Q845	23314246	Transistor, 2SC2023 LF-4
QA02	A6342200	Transistor, 2SC2878-A
QA03	23114689	Transistor, BC547A
QA04	23114689	Transistor, BC547A
QA06	23114689	Transistor, BC547A
QA10	23114689	Transistor, BC547A
QA11	23114691	Transistor, BC557A
QA12	A6342200	Transistor, 2SC2878-A
QA90	23114689	Transistor, BC547A
QB01 QB02	23114689 23114689	Transistor, BC547A Transistor, BC547A
QF04	23114689	Transistor, BC547A
QF05	23114689	Transistor, BC547A
QF80	A6842185	Transistor, 2SD553-Y
QF81	A6842185	Transistor, 2SD553-Y
QG02	A6335477	Transistor, 2SC2712-Y
QG08	A6335477	Transistor, 2SC2712-Y
QG09	A6335477	Transistor, 2SC2712-Y
QG10	A6335477	Transistor, 2SC2712-Y
QG11	A6335477	Transistor, 2SC2712-Y
QG12	A6335477	Transistor, 2SC2712-Y
QH02 QH03	23114691 23114689	Transistor, BC557A Transistor, BC547A
41103	20114003	Hallolotti, DC54/A

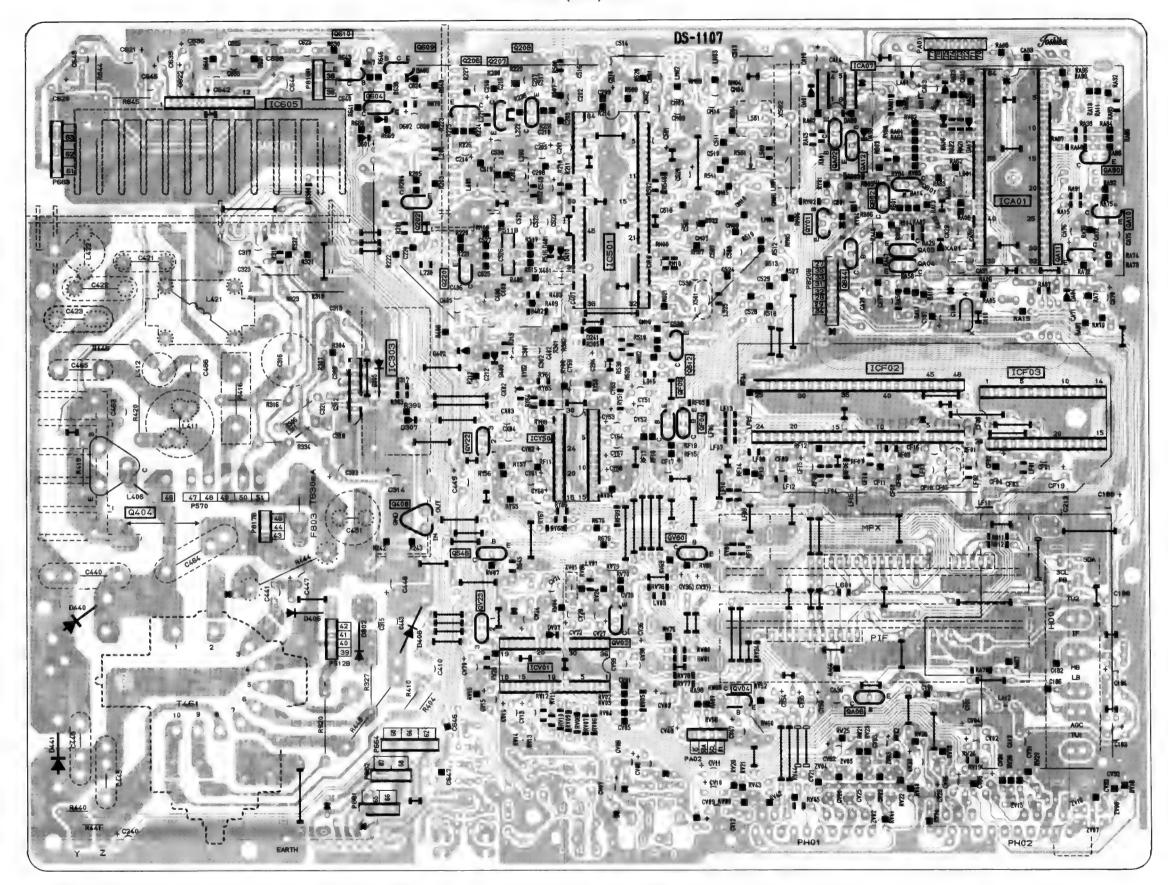
Location No.	Part No.	Description
QH04	23114689	Transistor, BC547A
QH05	<b>2</b> 3114689	Transistor, BC547A
QV02	<b>2</b> 3114691	Transistor, BC557A
QV04	23118980	Transistor, BC337
OV30	A6541130	Transistor, 2SA1162-Y
QV50	A6357139	Transistor, 2SC3125 FA-6
QV80	23114689	Transistor, BC547A
QY01	A6734585	Transistor, 2SC752GTM-O
D110	23115878	Diode, Zener, μPC574J(L)
D241	A7150041	Diode, 1SS104
D302 D305	23118479	Diode, BYD33J Diode, BYD33J
D305	23118479 23115599	Diode, 810333 Diode, 1N4148
D370	23115599	Diode, 1N4148
D401	23316325	Diode, Zener, UZ9.1BSC
D402	23316367	Diode, Zener, UZ33BS, B
D403	23316333	Diode, Zener, UZ12BSB
D406	23118479	Diode, BYD33J
D408	<b>2</b> 3118052	Diode, RU4Z
D410	A7116815	Diode, Zener, 04AZ8.2Y
D440	23118995	Diode, BY228
D441	23118994	Diode, BYW95C
D594	23115599	Diode, 1N4148
D595	23115599	Diode, 1N4148
D596	23115599	Diode, 1N4148
D601 D602	23115599	Diode, 1N4148
D802 D801	23115599 23118173	Diode, 1N4148 Diode, RBV-406M-LFA
D805	23118479	Diode, BYD33J
D807	23118479	Diode, BYD33J
D808	23118736	Diode, BYV96E
D809	23118451	Diode, RU4A
D810	23118052	Diode, RU4Z
D811	23118479	Diode, BYD33J
D812	23316337	Diode, Zener, UZ13BSC
D813	23118479	Diode, BYD33J
D814	A8643106	Photo Coupler, TLP621(GR)
D815	23115599	Diode, 1N4148
D830 D832	A8643106 23316289	Photo Coupler, TLP621(GR)
D834	A7275400	Diode, Zener, uZ2.7BSB Diode, 1S2462
D835	23118052	Diode, RU4Z
D836	23118052	Diode, RU4Z
D841	A7275400	Diode, 1S2462
D842	A7275400	Diode, 1S2462
D845	23115599	Diode, 1N4148
DA01	A7116425	Diode, Zener, 04AZ5.6Z
DA04	23115599	Diode, 1N4148
DA05	23115599	Diode, 1N4148
DA15	A7116515	Diode, Zener, 04AZ6.2Y
DA16	A7116515 A7116515	Diode, Zener, 04AZ6.2Y Diode, Zener, 04AZ6.2Y
DA17 DA96	A7116515 A7116515	Diode, Zener, 04AZ6.2Y
DA98	A7116515	Diode, Zener, 04AZ6.2Y
DA99	A7116515	Diode, Zener, 04AZ6.2Y
DE50	A8636541	Diode (LED), TLS153, Red
DF80	23316334	Diode, Zener, uZ12BSC
DF81	A7116415	Diode, Zener, 04AZ5.6Y
DG14	A7150258	Diode, 1SS176
DT50	A8606431	Diode (LED), TLG153,
DV07	00445500	Green
DV07	23115599	Diode, 1N4148

·		
Location	Part No.	Description
No.		2.5
MISCELLAN	FOUS	
↑ F801	23144898	Fuse, 3.15A
F801A	23165102	Fuse Holder
<b>⚠ F803</b>	23144827	Fuse, 0.63A
F803A	23165102	Fuse Holder
K901	23120371	Remote Sensor, IR-9106-K
P101	23367684	Plug, 11P
P301	23367684	Plug, 11P
P302	23367681	Plug, 8P
P666	23365432	Earphone Jack
<b>⚠ P801</b>	23176705	Power Cord
PH01	23365598	21 Pin Connector
PH02	<b>23</b> 365598	21 Pin Connector
S501	23145226	Switch, Push, 1C1P
S502	23145226	Switch, Push, 1C1P
S503	<b>23</b> 145226	Switch, Push, 1C1P
S504	23145226	Switch, Push, 1C1P
<u> </u>	23145434	Switch, Power, 2C2P
<b>⚠ V901A</b>	23902019	Socket, CRT, 10P
W661	23351030	Speaker, SPK-1305,
		60x120mm, 8 ohm
W662	23351003	Speaker, SPK-1277,
		60x70mm, 8 ohm
W663	23351030	Speaker, SPK-1305,
		60x120mm, 8 ohm
W664	23351003	Speaker, SPK-1277,
		60x70mm, 8 ohm
X401	23153721	Ceramic Resonator, 503kHz,
		TCR1023
X501	23153979	Crystal, 4.43MHz
X502	23250950	Coil, 1H-Delay Line, DL711
XA01	23153845	Ceramic Resonator, 4MHz,
		TCR1015
Z101	A5615249	PIF SAW Filter, F1804D
Z201	23107927	Ceramic Video Trap,
ļ		5.5MHz, TCF1011
Z202	23107913	Ceramic Video Trap,
		6.5MHz, TCF1018
Z661	23107742	Filter, TEM1014
Z662	23107742	Filter, TEM1014
Z663	23107742	Filter, TEM1014
Z664	23107742	Filter, TEM1014
ZF01	23153012	Crystal, 27MHz
ZG04	23107855	Ceramic Filter, 5.5MHz,
		TCF1031
ZG80	23107856	Ceramic Filter, 5.74MHz,
		TCF1030
ZV01	23107849	Ceramic Video Trap,
		4.43MHz, TCF1032
ZV02	23107744	Filter, 3MHz, TEM1012
ZV03	23107744	Filter, 3MHz, TEM1012
ZV04	23107744	Filter, 3MHz, TEM1012
ZV05	23107744	Filter, 3MHz, TEM1012
ZV06	23107744	Filter, 3MHz, TEM1012
ZV07	23107744	Filter, 3MHz, TEM1012
ZV15	23107744	Filter, 3MHz, TEM1012
ZV16	23107744	Filter, 3MHz, TEM1012
PC BOARD A	ASSEMBLIE	S
U101	23337995	PIF Board, PB1526-1
U902A	23338716	Main Board, PB1948
U903A	23337857	Power-1 Board, PB1451-1
U903B	23337858	CRT Drive Board, PB1451-2
U903C	23337859	Power-2 Board, PB1451-3
. 55050	2000/000	1 5W61-2 Doard, 1 D 1401-3

Location No. U904A U904B U904C	Part No.  23338732 23338733 23338734	Description  DPC Board, PB1963-1 CTI Board, PB1963-2
U904B	23338733	
U904B	23338733	
		V. 11 BOATO, PB 1963-2
		Control Board, PB1963-3
U904D	<b>23</b> 338735	Headphone Board, PB1963-4
UG01	<b>23</b> 337996	IGR Board, PB1526-2
PICTURE TU		1611 Bourd, 1 B 1020 2
N V901	23312379	Picture Tube, A59ECY13X31
	20012070	Tietare Tube, Assect 19731
TUNER H001	23121569	Tuner, VHF/UHF, EG448L
REMOTE HA		
K902	23120032	Remote Hand Unit, CT-9573
AT01	23305090	Upper Ca <b>se</b>
AT02	23305084	Lower Case
AT03	23305085	Battery Cover
ST01	23305097	Rubber Sheet
UT01	23338428	PC Board, PB1 <b>741</b>
ZT01	23153736	Ceramic Resonator,
		CSB455EB20

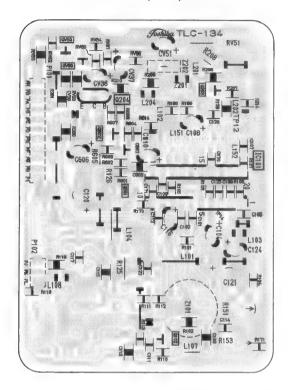
 MEMO	
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<u>,</u>	

# MAIN BOARD PB1948

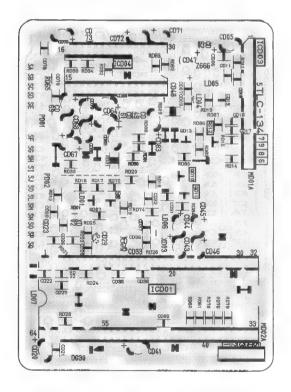


# PIF BOARD PB1526-1

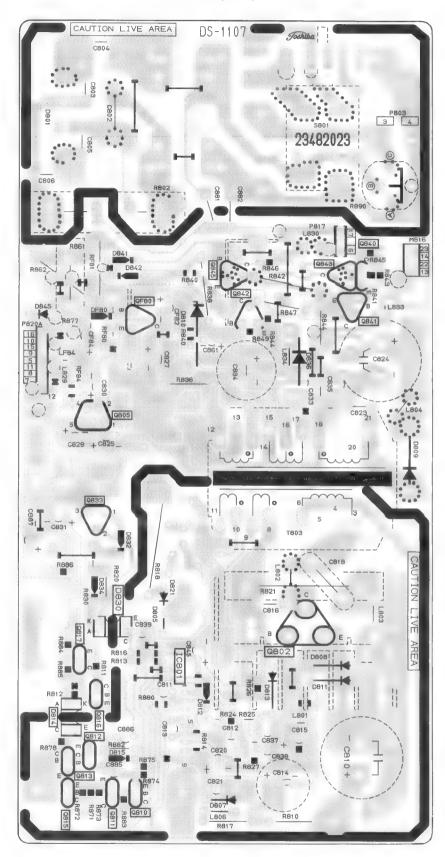
BOTTOM (FOIL) SIDE



# IGR BOARD PB1526-2

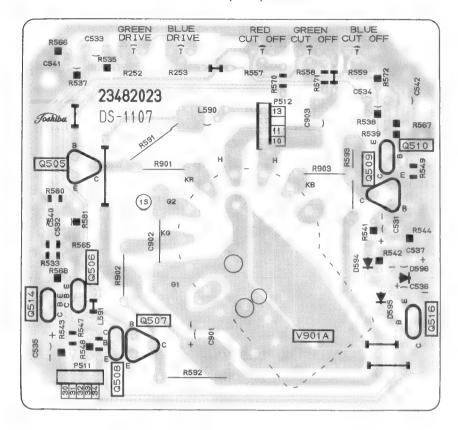


# POWER-1 BOARD PB1451-1

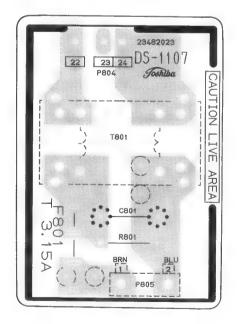


# CRT DRIVE BOARD PB1451-2

BOTTOM (FOIL) SIDE

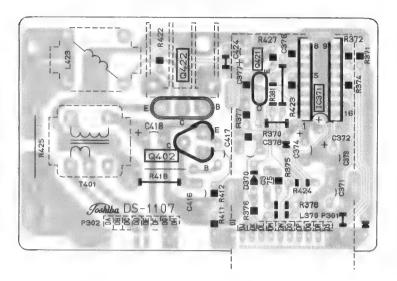


# POWER-2 BOARD PB1451-3



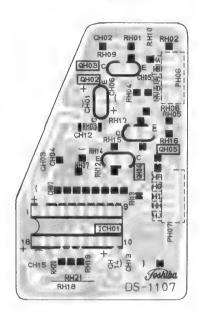
# DPC BOARD PB1963-1

BOTTOM (FOIL) SIDE



# CTI BOARD PB1963-2

BOTTOM (FOIL) SIDE

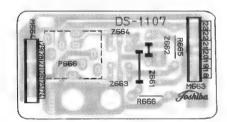


# **CONTROL BOARD PB1963-3**

BOTTOM (FOIL) SIDE



# **HEADPHONE BOARD PB1963-4**



# TERMINAL VIEW OF TRANSISTORS

- ① BC327 BC337 BC547A BC547B BC547C BC557A BC557B BC556A
  - E B C

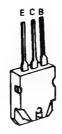
2 2SK30ATM 2SK117

DGS

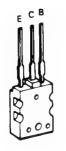
- ③ BD202
- 4 BF8712SD5532SC1569



(5) 2SC3678 2SC3182N

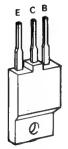


- © 2SD1427 2SD1432
- 2SC2482
   2SA1321
   2SC2230
   2SA1020
   2SC2655
   2SC752GTM
- 8 2SC388ATM 2SA1015 2SC1959 2SA562TM
- 9 2SD1548
- @ 2SC2023



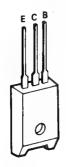




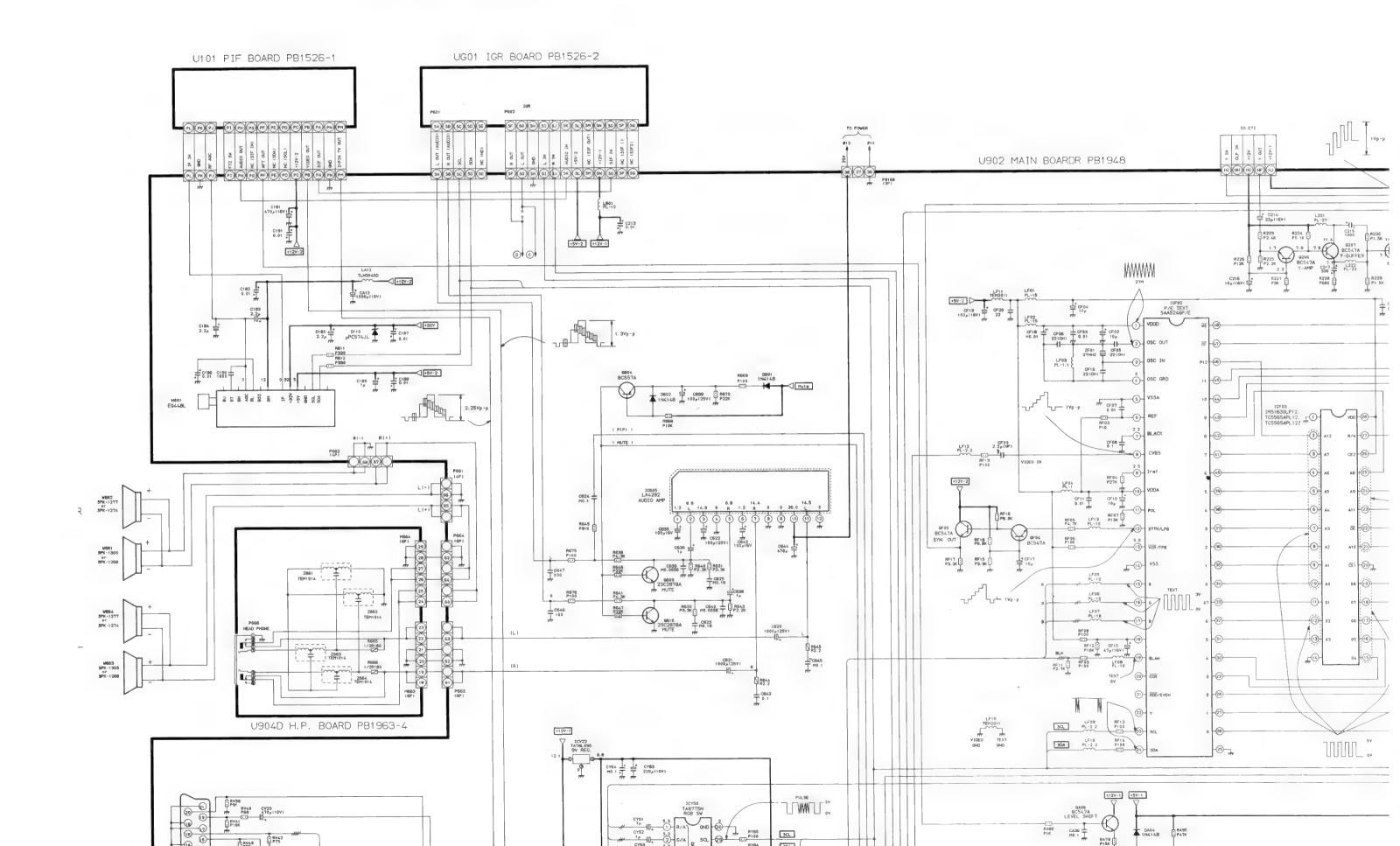


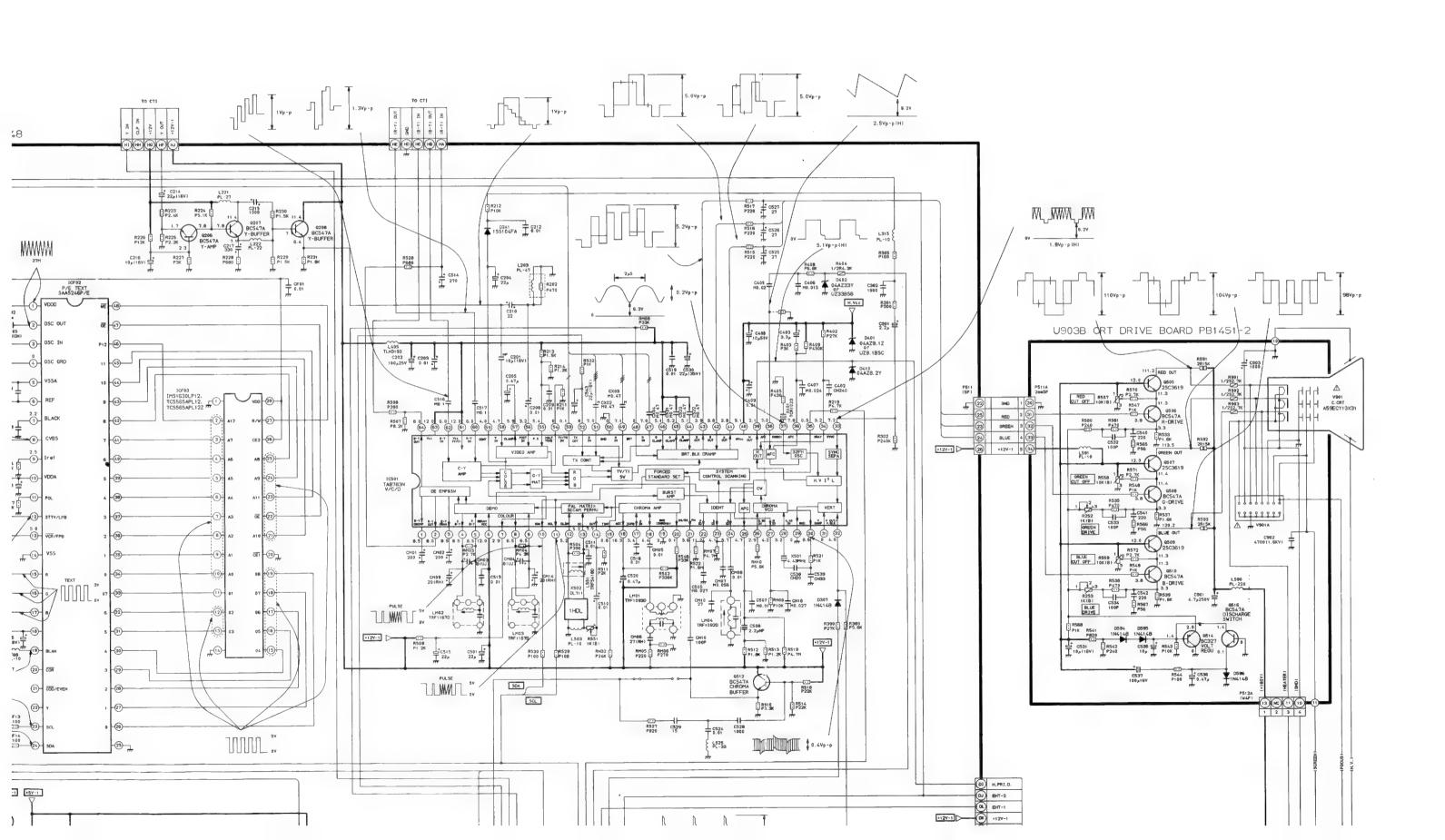


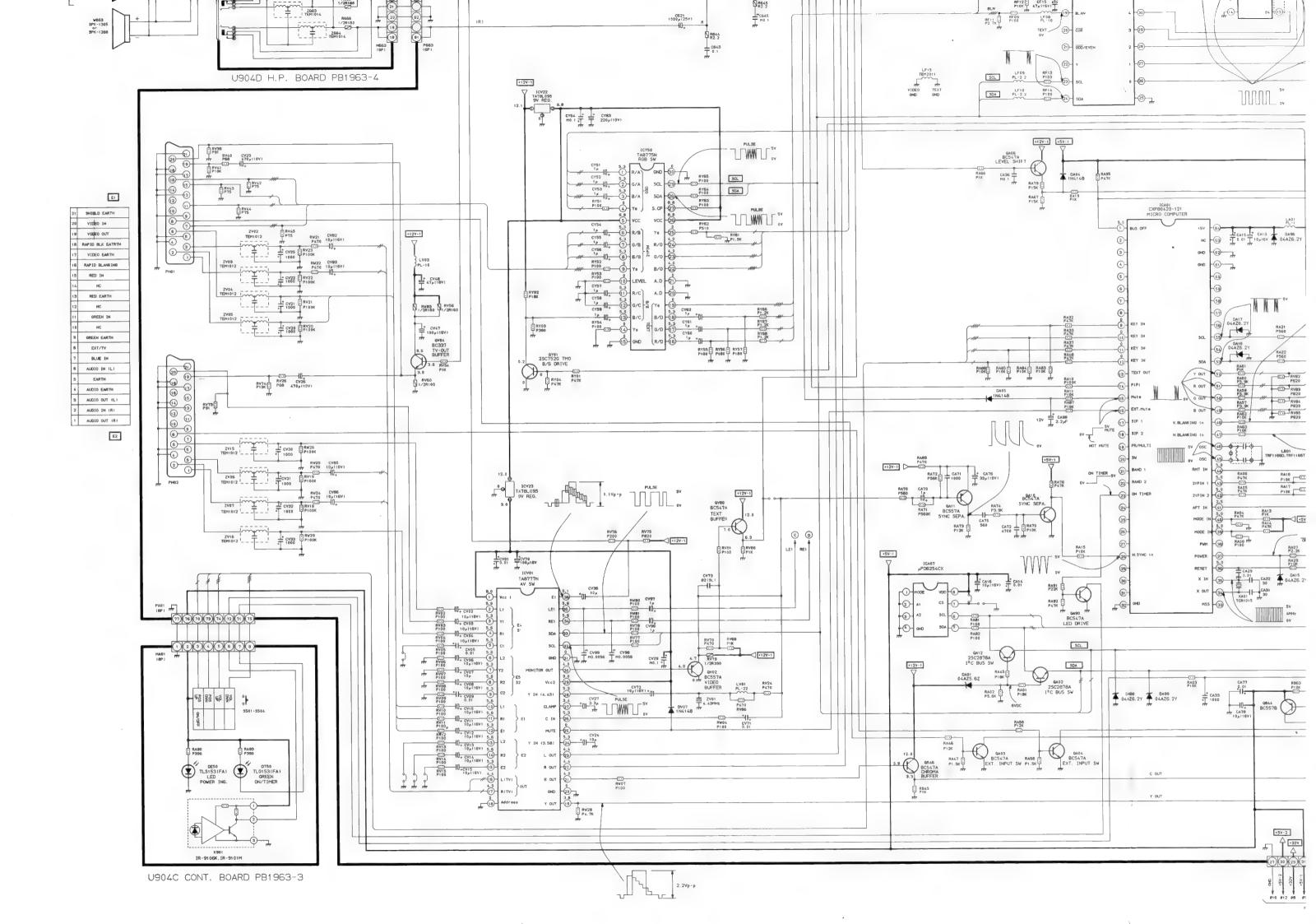
① ON4408 ON4409

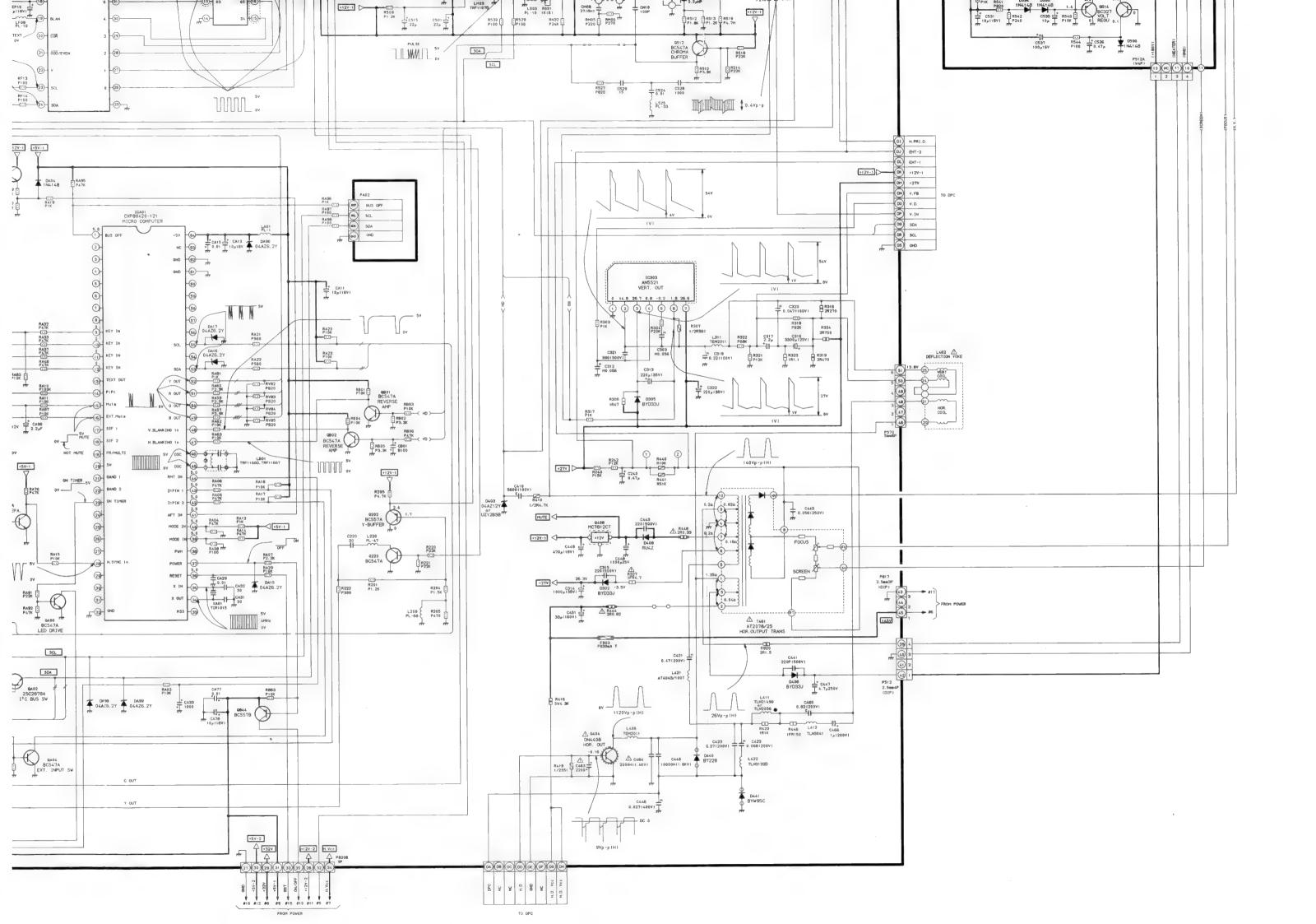


# SCHEMATIC DIAGRAM (1/2)









# SCHEMATIC DIAGRAM (2/2)

#### IMPORTANT SAFETY NOTICE

Component marked with the International Hazard Symbol must, if changed, be replaced by an approved type and must be mounted as the original. This will ensure that the safety standards adhered to during manufacture will be maintained following any servicing procedure.

#### **OBSERVATION OF VOLTAGES AND WAVEFORMS**

- 1. Voltage readings were obtained using a high impedance digital voltmeter.
- (-) or ground lead of instruments should be connected to the ground marked (1) in the shematic on checking Non-isolated circuit surrounded by mark but should be connected to the points marked (1/12) on checking isolated circuit.
- 3. The voltage readings may vary as much as ±20%.
- Check that the Tuning, A.F.C., Brightness, Contrast and Colour controls are adjusted for the best picture, making sure that the Contrast, Brightness and Colour controls are set near to their mid-positions.
- The waveforms were taken using a standard colour bar signal and were observed using a wide band oscilloscope via a low capacity probe.

#### NOTES:

1. This circuit diagram is subject to change without notice.

# **EXPRESSION**

# VALUE OF RESISTOR, CAPACITOR and INDUCTOR

- 1. Resistance is shown in ohm, k=1,000, M=1,000,000.
- 2. Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in  $\mu F$  and the values more than 1 in pF.
- Unless otherwise noted in schematic, all inductor values more than 1 are expressed in µH, and the values less than 1 in H.

# **GROUNDING SYMBOL**

1. L: Non isolated ground, I Isolated ground.

# **RESISTORS**

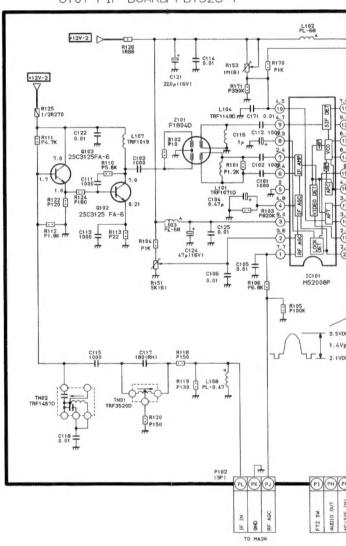
#### Prefixed to values:

TYPE	
Carbon Comp.	
Oxide Metal Film	
Ins. Carbon Film	
Wire Wound	
Cement covered W.W.	
Fusible Res.	

UG01 IGR BOARD PB1526-2

ICG30 TA7337P TO MAIN 12V-2 SA) L AUDIO (SB) R AUDIO SD SDA PG01 (SP) base-width integrator base switch PG02 CG43 - RG35 B0.01 T P4.3K NC(+5V-21 +12V-1 SM NCISIF OUT C844 R036 P4.7K SO SIF IN SP NCISIF 11 TA7337P 5.5MHz DET 1.7 1.7 11.8 0 4.7 4.6 6.5 5.5 C917 R011 | P1K | C011 | | |

U101 PIF BOARD PB1526-1



10801

# **RESISTORS**

# Prefixed to values:

TYPE	MARK
Carbon Comp.	S
Oxide Metal Film	R
Ins. Carbon Film	Р
Wire Wound	w
Cement covered W.W.	NO MARK
Fusible Res.	FR

#### Suffixes to values:

TOLERANCE	MARK
± 1%	(F)
±2%	(G)

# Suffixes to VR values:

LAW	MARK
Linear	(B)
'C' Curve Characteristic	(C)

#### Rating Markings:

WATTAGE	MARK
1/6W	
1/4W	<b>&gt;</b>
1/2W	-
1 W	
2W	2

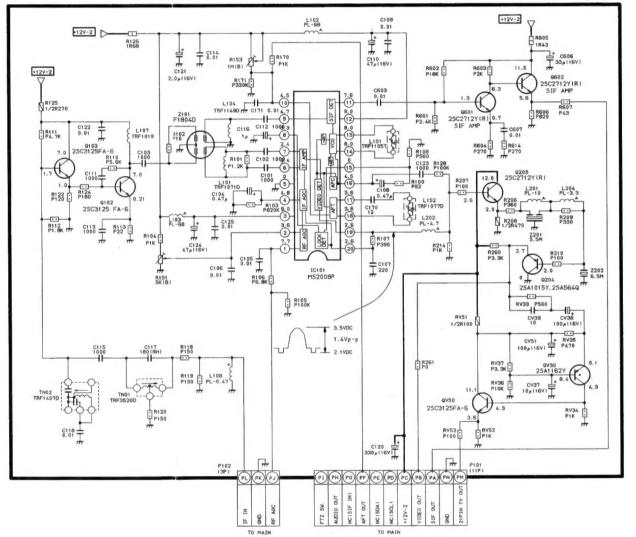
WATTAGE	MARK
3W	3
5 <b>W</b>	5
10W	10
15W	15
20W	20
25W	25

# CAPACITORS

# Rating Markings:

rating markings.			
Туре	Mark		
Ceramic Disc 50V Only	4F		
Electrolytic	±0 ⊢ ±1 ⊢		
Electrolytic Non-Polar	-[] []- -[]][-		
Variable Capacitor	#		
Other	41-		

# U101 PIF BOARD PB1526-1



U904B CTI BOARD PB1963-2

